

THE REGULARIZATION
OF EMPLOYMENT

H. FELDMAN

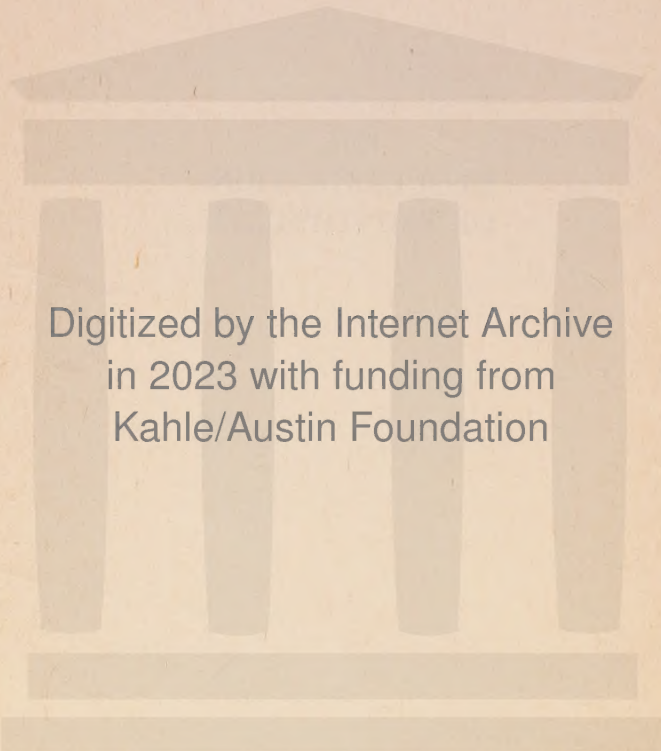
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THE
REGULARIZATION
OF EMPLOYMENT



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THE REGULARIZATION OF EMPLOYMENT

A Study in the Prevention
of Unemployment

By

erron
H. FELDMAN, Ph. D.

*Assistant Professor, Industrial Relations
Amos Tuck School of Administration and Finance
Dartmouth College*

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THE REGULARIZATION
OF EMPLOYMENT

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First Edition

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TO

SAM A. LEWISOHN

In appreciation of his deep human
interest in the problems of industrial
relations and in their constructive
solution through scientific effort.

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PREFACE

IN the Fall of 1921, the writer was employed by the Economic Advisory Committee of the President's Unemployment Conference to prepare a research report on what had been done within industry itself to prevent the occurrence of unemployment. Little could be accomplished then in the short time available, but the importance of determining the practical possibilities of preventing unemployment through a better technique of administration prompted the writer to continue his investigation. When a certain amount of this study had been prepared, Mr. Sam A. Lewisohn, president of the American Management Association, suggested that it be expanded into a comprehensive study under the auspices of the Association. The Association thereupon appointed a committee on the regularization of industry, which included, besides Mr. Lewisohn, Mr. Henry S. Dennison, president of the Dennison Manufacturing Company; Mr. Ernest G. Draper, comptroller of the Hills Brothers Company; Mr. Dwight T. Farnham, Manager, Industrial Department, Peat, Marwick, Mitchell & Co.; Dr. Willard E. Hotchkiss, Executive Director, National Industrial Federation of Clothing Manufacturers, and Prof. Samuel McCune Lindsay, of Columbia University. The members of the committee have read the manuscript and made most valuable criticisms; but aside from approving its general character, the committee is not responsible for specific statements or opinions.

The author has called upon too many for cooperation to be able to mention them all. If particular persons must be selected for an expression of gratitude, the deepest debt is due to Prof. Samuel McCune Lindsay, who originally started the writer on this subject, for helpful counsel and inspiration throughout this study; to Mr. Sam A. Lewisohn for his active personal interest in it and for his counsel and aid; to Mr. Henry S. Dennison for the opportunity of spending

several weeks looking into the methods of the Dennison Company; to both him and Mr. Dwight T. Farnham for their keen and painstaking criticism of the manuscript; to the officers of the Joseph and Feiss Company, of Cleveland, for the opportunity of an extended study of its methods; to Prof. Henry R. Seager, of Columbia University; Prof. Don D. Lescohier, of Wisconsin University; Mr. W. J. Donald, Managing Director of the American Management Association; Dr. Harlow S. Person, Managing Director of the Taylor Society, and Mr. Morris L. Cooke, consulting engineer, of Philadelphia. Like the many others who have had the privilege of doing part of their research work at the Economics Division of the New York Public Library, the author owes a great deal to the helpfulness of its economics staff. The cooperation of the American Management Association has been an important factor aside from the appointment of its regularization committee, for it generously made funds available for traveling expenses to check up information and assisted in other ways. A real part has been played by the Amos Tuck School, Dartmouth College, in so adjusting the author's teaching schedules that it was possible to engage in the research work involved.

The author's chief aim throughout has been to present materials for discussion so as to enable economists, employers, general readers, and students of the problem of unemployment to get a better understanding of the ways and means of prevention of unemployment and thereby promote the regularization of employment.

April, 1925

H. F.

PART I
THE NEW AMERICAN EMPHASIS

THE REGULARIZATION OF EMPLOYMENT

CHAPTER I

GROWING INSECURITY OF EMPLOYMENT

I THE OUTSTANDING EVIL OF INSECURITY

IT is significant that while publicists, statesmen, and economists have long vied with one another in pointing out the increasing benefits derived by the masses from the modern industrial system, practically none has maintained that it affords increasing security of employment. Even when the defense of the present order is at issue, they hesitate to take the stand that there has been substantial headway in reducing for the ordinary wage-earner the insecurity of his economic life. Indeed, this uncertainty of employment stands out as a black sheep among modern social problems.

In view of this it is important to ask: Is insecurity of employment a passing phase, becoming progressively less serious, or is it a modern product which shows a tendency to become increasingly disturbing? A tendency of the latter kind would make the problem of even greater significance than its present proportions indicate.

The question is, it should be noted, the relative *insecurity of employment*, not the relative amount of *unemployment*. An inquiry as to the one would not necessarily be the same in scope as an inquiry concerning the other. Were it the purpose to prove that there has been a great deal more *unemployment* in recent years than formerly, a comparison in terms of the total amount of idle time would be called for. The purpose in putting the emphasis on *insecurity of employment* is to determine whether the various cross currents of modern industry displace a man from his position more

often than formerly, and thus force him to seek other employment more frequently. If that is the situation, economic consequences follow which are apart from the admitted evils of unemployment itself.

A study of insecurity of employment is thus a broader study than that of unemployment. Indeed, an analysis of the possibilities of modifying those processes of industry which are responsible for insecurity lies at the very heart of the problem of reducing unemployment.

A brief explanation is necessary as to the terms here used. "Irregularity of employment" will be used to indicate the discontinuous character of the wage-earner's job, and imply the haphazardness of the hiring and firing process in industry. "Regularization," in turn, although a long word, will denote the problem and process of making employment of a continuous and uninterrupted character. The word is preferable for this purpose to the term "stabilization," which, when used by the business man to apply to employment, often means something different from regularization—such as the elimination of a labor shortage, a respite from demands for wage increases, or a lull in strikes. "The stabilization of demand," "the stabilization of business conditions," and similar expressions in the press popularly call to mind a bringing back to normal or to prosperous conditions. As used in this book, stability and its variations will, therefore, be used only in connection with general economic conditions and will denote merely the attainment of a business situation allowing for reasonable confidence in planning operations. "Security" and "insecurity" are used to indicate the feelings of the workers concerning the future of their employment, since security implies a mental state of certainty and confidence, while insecurity denotes lack of assurance with regard to a condition, and apprehensiveness of change.

A definite meaning must also be given to the term "unemployment." Is a man who is too old or too feeble to work, but who is anxious to secure a job, unemployed? Is a trade-unionist who, when out of a job, wants work only at his trade, or in a union shop, or at his regular rate, unemployed? Several students of the problem have attempted definitions. The most acceptable is that of Messrs. Rown-

tree and Lasker, which has become the standard: "A person is unemployed who is seeking work for wages, but unable to find any suited to his capacities and under conditions which are reasonable, judged by local standards."¹

It is next necessary to consider some of the facts which throw light on the question as to whether insecurity of employment is a growing menace or a declining evil. First, the disturbances responsible for seasonal, cyclical, and casual employment will be discussed; after which some of the other conditions which break the continuity of employment will be briefly examined.

II INCREASE OF SEASONAL IRREGULARITIES

The most pervasive disturbances in employment are those due to seasonal fluctuations in production. Their wide extent has not been recognized until recently. Ordinarily seasonal trades have been spoken of as if seasonality were confined to only a few industries. Now, however, students realize that the distinction between seasonal and non-seasonal trades can be made only with difficulty. One who has occasion to examine records of employment rarely finds instances where a graphic presentation of the payroll, either of a firm or of an industry, shows a fairly straight line. Instead, the investigator almost invariably finds that the line has a crest and a trough, indicating special needs for an augmented labor force at one or more seasons.

That it is the exception rather than the rule for any trade to maintain fairly equable activity throughout the year is the conclusion resulting from various detailed inquiries. Indeed, investigators have maintained that it is almost incorrect to speak of a "seasonal trade" because there are practically no trades which are not subject to seasonal fluctuations. The main difference is one of degree. Extreme fluctuations are found in such occupations as farming, building, coal mining, canning, lumbering, millinery and clothing, and other trades, as well as in individual firms belonging to industries normally not believed to have extreme changes.

¹ B. Seeborn Rowntree and Bruno Lasker, *Unemployment: A Social Study* (London, 1911), p. xiii.

Thus, in a recent study of printing, one plant is cited which employs 2,700 people in rush seasons and drops to 1,500 in dull; another which lays off 1,100 employees for periods of three months twice a year, therefore having a fluctuating payroll varying from 1,800 employees to 700 employees.¹ Census figures for the United States sugar industry in 1919 show 4,661 persons employed in March and 27,064 in November. In other industries employment fluctuations are much less severe or quite moderate, but rarely non-existent.

If seasonal irregularity of employment is so pervasive, why has this not been discussed in economic literature until recently? There are many reasons. Among these is a more scientific interest in productivity to-day, which makes the economic wastes of irregular operation loom larger than ever. There is also a more sympathetic social conscience, for it is certainly becoming recognized that unemployed persons are not "sturdy rogues," but victims of a shaky economic environment.

There is a more important explanation, however, why the seasonality of industry is receiving attention. This is the grave fact that never before was employment affected by seasonal changes in employment in as many industries as to-day, nor has the degree of variation been as great.

The chief reason for greater seasonal variations in employment is the more powerful rôle which style changes play in modern life. Few people realize how sensitive to style the public has become. Styles are found in a wide variety of industries. Designers of upholstery and special parts for pleasure cars make frequent trips to Paris and other centers of origination in order to discover new "wrinkles" for the season's style. Furniture which has been popular one year is sold with difficulty the next. A well-advertised and established brand of talcum powder may suddenly lose out to a new product with a more popular odor. A large and alert candy firm expresses its absolute inability to fathom the mysterious change in taste that occasionally forces it to abandon a line of confections which has been the vogue.

¹ *Waste in Industry*. A report by the Committee on Elimination of Waste in Industry, of the Federated American Engineering Societies (New York, 1921), p. 198.

Emphasis needs to be laid, however, on the heightened sensitiveness to style in the designing of clothing, because changes in items of wear affect a large number of other products. Suits and dresses are the main determinants, and upon the kind to be worn in the approaching season depend the designs of millinery, hosiery, footwear, parasols, furs, handkerchiefs, gloves, ornaments, and numerous other items used in dress. This is aside from the character and the pattern of the cloth itself, the manufacture of which requires the anticipation of the garment style by from nine to twelve months. Even automobiles feel the influence of styles in women's dress. The president of a large concern in Cleveland made the claim to the writer that a high protruding feather in millinery may be reflected in the height of the door and body of pleasure cars.

Fashion changes may seriously interfere with the prosperity of a whole industry. In the wool trade, the change to narrower skirts and short coats in 1910, coupled with a distinct shift in the demand for woollens and worsteds to corduroy and other fabrics, caused the market for the more common types of woolen and worsted dress goods to be reduced by not less than 40 per cent of the demand in 1909.¹ In other cases the effect has been the opposite. At all times inability of the suit manufacturers to determine the styles keeps the cloth manufacturers from starting production and working continuously. Besides, many industries not themselves stylebound are forced to wait until industries they serve are ready to order their supplies, and this interdependence spreads seasonality of operation in ever-widening circles.

The disastrous effects of rapid style variations on regularity of employment and the degree of insecurity imposed on the workers may be illustrated by the situation in the women's garment industry in Cleveland, Ohio. A study of the extent of employment offered to the workers in that industry during the prosperous twelve months ending on June 30, 1920, was made at the time by the Cleveland Garment Manufacturers Association. The investigation was carried on by the association's own officials and was done

¹ Paul T. Cherington, *The Wool Industry* (New York, 1916), p. 184.

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with the confidence and cooperation of the members reporting, so the facts do not emanate from a source which might be accused of exaggerating the gravity of the situation. These facts are shown in the following table:

Types of workers	Total number in the Cleveland market in 1920	Maximum number employed by the market in the busiest week of the year of each craft	Surplus of workers in busiest week of each craft	
			Number	Per Cent
Operators....	2,037	1,234	803	39
Finishers....	988	648	340	34
Cutters.....	345	252	93	27
Pressers.....	395	328	67	17

The table shows that during an exceptionally prosperous year in what was known as the most stable women's clothing center in the country, the number of operators out of work in the busiest week in their trade constituted 39 per cent of the total number of operators in the market. Thirty-four per cent of the finishers, 27 per cent of the cutters, and 17 per cent of the pressers were in the same plight in their maximum weeks, respectively.

Yet the facts in this table do not reveal the real gravity of the situation. They represent an average condition only and thus really obscure the greater chaos revealed by a study of the records of individual firms. For the worker who is employed has a job with a particular plant. His security of employment at any moment depends on that job. The curve of employment, shown in Fig. 1, is that of a firm in this market which had particularly severe fluctuations. In the last week of August, 1919, this firm had 183 workers. Only a week later the payroll dropped to 88. In the following week it went back to 174. Beginning with the third week in October are a number of jagged descents which brought the payroll down to 55 at the end of November, but from here there was a rise culminating with the peak

point at 193 in the middle of January, 1920. Between the third week in February and the fourth week there was a sudden change from 178 to 55, but in the week following the payroll was back at 178! Then there was a series of steep falls leading to the minimum of 40 at the end of April, from which, with many irregularities, the payroll got back to 152 at the end of June.

Such instances are not limited to the garment industry. They may be found in the employment records of individual firms in the candy industry, in mining, in building and in

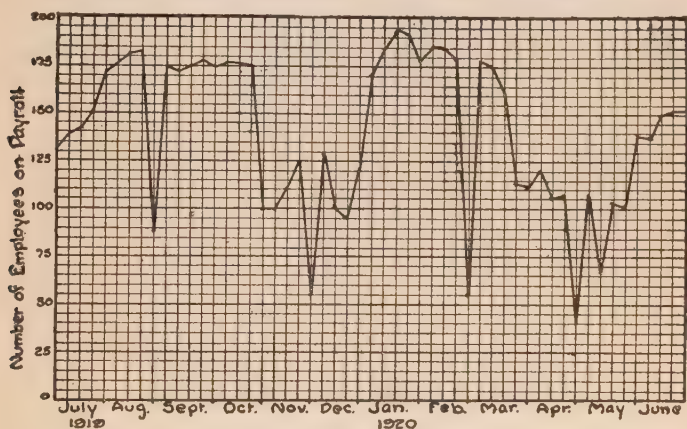


FIG. 1. AN EXAMPLE OF EXTREME IRREGULARITY OF EMPLOYMENT
Fluctuating payroll of a manufacturer of women's garments,
July, 1919-June, 1920

numerous other trades. In the style trades conditions are among the worst. In millinery the fluctuations are perhaps the most extreme. In the women's shoe trade uncertainty of style keeps many factories practically idle until the style is set and the orders are received. In all trades dependent upon style the factory is forced to postpone production until the season is actually begun and the popularity of certain models assured.

Almost every study of employment has come to the conclusion that style has become an increasingly disturbing

10 THE REGULARIZATION OF EMPLOYMENT

factor.¹ This is to be expected in view of the conditions described and the interrelationship existing among industries. Also because now we have "movies," women's magazines, mail-order houses, and other media to proclaim the latest fashion or prophesy the coming mode in any object lending itself to style changes, as against the restricted influence of styles in former times.

The recent report of the Committee on Waste states, concerning the shoe trade, that styles are increasing and that "it has been said, in fact, that millinery in footwear is outstripping millinery in hats."² Men are not free from an increased interest in style. In the men's ready-made clothing industry "the trend in recent years . . . has been toward an increasing number of styles of young men's suits and of varieties of cloth."³ The chief executive of a large men's clothing firm of Rochester stated to the author that some years ago staple models of overcoats constituted about 50 per cent of the overcoat business of this firm, but that now not 5 per cent were included in such models. Similar complaints were heard from employers in various other industries.

From the facts available, it seems reasonable to infer that in the manufacturing industries, in any event, seasonality of production and employment has increased the wage-earner's insecurity. The weight of authority is behind the conclusion, and the tendency has been observed for some time. Sidney Webb almost fifteen years ago expressed the opinion that since occupations have become more specialized, and the kinds of occupations are perpetually changing, "the chance of being thrown out has been doubled in both directions."⁴

¹ Cf. *Seasonal Trades*, edited by Sidney Webb and Arnold Freeman (London, 1912), pp. 276-277; Henry R. Seager, "Unemployment: Problem and Remedies," in *Proceedings of the National Conference of Charities and Corrections*, 1915, p. 495; J. H. Willits, *Philadelphia Unemployment* (Philadelphia, 1915), p. 18.

² *Waste in Industry*, *op. cit.*, p. 139.

³ *Ibid.*, p. 96.

⁴ Great Britain. Report of the Royal Commission on Poor Laws and Relief of Distress (London, 1909), appendix vol. ix (published 1910), page 203, question 93277. Based on the accumulated evidence of various investigations and hearings, the Royal Poor Law Commis-

III GREATER FREQUENCY OF CYCLICAL DEPRESSIONS

In enumerating the world crises in a discussion on Credit and Crises, Professor Seligman says: "The important ones were those of 1825, 1837, 1847, 1857, 1873, 1884, 1890, 1893, 1900, 1907, and the war panic of 1914."¹ To this list Professor Seligman would undoubtedly add the late unpleasantness of 1920-21. If a comparison is made between the intervals separating recent crises and the intervals separating crises in the earlier part of the period under consideration, the result is strikingly significant. The facts are presented in the form of a table. It must be made clear that the author does not offer this table as a complete demonstration, but merely as an illustration of the types of evidence justifying his conclusion.

FIRST PERIOD—1825-1884		SECOND PERIOD—1884-1920	
Intervals between crises	No. of years in interval	Intervals between crises	No. of years in interval
1825-1837.....	12	1884-1890.....	6
1837-1847.....	10	1890-1893.....	3
1847-1857.....	10	1893-1900.....	7
1857-1873.....	16	1900-1907.....	7
1873-1884.....	11	1907-1914.....	7
		1914-1920.....	6
Total.....	59	Total.....	36
AVERAGE INTERVAL BETWEEN CRISES..	11 4/5 years	AVERAGE INTERVAL BETWEEN CRISES	6 years

This table shows that while the intervals between important world crises during the period 1825-84 averaged almost

sion stated that unemployment as a cause of distress and pauperism had assumed, both absolutely and relatively, larger proportions than in 1834, and that it was the almost unanimous opinion of witnesses residing in industrial centers, and especially of London witnesses, that this condition was yearly developing. (Vol. xxxvii, p. 362, sec. 317.)

¹ E. R. A. Seligman, *Principles of Economics* (New York, 1921), p. 544.

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twelve years, the intervals between world crises since 1884 have averaged only six years. Cyclical depressions have, therefore, practically doubled in frequency within a century. At no time were the intervals as short. An important study recently completed by a noted group of British publicists and economists comes to the same conclusion concerning England. They state: "A tendency that can be traced is that the period of the ebb and flow of trade (in the fifty years before the war) was apparently growing shorter. . . . We anticipate that in the future . . . the trade cycle will tend to shorten and to be world wide in its operation."¹ Indeed, the sun-spot theory of Jevons is disputed on the ground that, although spots on the sun have appeared at slightly longer intervals during the last fifty years, there is a marked tendency for the trade cycle to grow shorter.² If we care to go back to the earlier crises, the facts indicate that from 1701 to 1825 there were twelve intervals, totaling 124 years, making an average interval of $10\frac{1}{3}$ years, showing them to have been much less frequent than in recent decades.³

The cyclical depressions discussed so far have been what Professor Seligman called the "important ones." If the annals are studied more closely, the distressing instability of business becomes truly disheartening. In his detailed analysis of economic history, Professor Mitchell describes some of the changes of fortune during various recent periods, as, for example, in 1890-97, when the changes were "both remarkably quick and remarkably sharp." He shows that there was a crisis in 1890, depression in the first half of 1891, sudden revival in the autumn followed by prosperity in 1892; violent panic in 1893; deep depression in 1894; short-lived buoyancy in 1895; return of severe strain in 1896, and another relapse into depression after the presidential election, and finally a vigorous revival in midsummer of 1897.⁴

¹ *Is Unemployment Inevitable?* A report by a group including J. J. Astor, A. L. Bowley, Robert Grant, J. H. Jones, P. J. Pybus, B. Seebohm Rowntree, D. Spring-Rice, F. D. Stuart, and W. T. Layton, chairman. (London, 1924), pp. 10-11.

² *Ibid.*, p. 37.

³ William Stanley Jevons, *Investigations in Currency and Finance* (London, 1884), pp. 214-215.

⁴ Wesley C. Mitchell, *Business Cycles* (Berkeley, 1913), p. 63.

The increased frequency of cyclical fluctuations has not been mitigated by any evidence of decreased intensity. The range between the peak of prosperity and the lowest point in the depression in the business cycles has shown no definite tendency toward improvement. On the contrary, employment statistics of the most recent depressions point the other way.

An intensive study made for the Unemployment Conference includes the claim that in actual diminution of employment the depression of 1921 was almost twice as acute as that of 1908, and at least twice as acute as that of 1914-15.¹ This conclusion is the more reliable because not based on a comparison of absolute numbers, but by reduction to index numbers of the range of fluctuations from the crest of the previous period of prosperity in each cycle to the lowest point of employment reached in the subsequent depression. There was probably less suffering in 1921 because the previous period of war and post-war prosperity had allowed the workers to accumulate more savings. But this is aside from the point that there was a greater amount of unemployment.

Nor has the duration of cyclical depressions shortened. If one thinks that depressions are mere short-time occurrences which soon turn to better times, facts are available to show how protracted recent periods of cyclical depression really have been. In one study a chart is presented showing the amount of pig-iron production each year from 1860 to 1922—a period of 63 years. The years in which a depression existed are cross-hatched. The one beginning in 1873 seems to have lasted six years. That beginning in 1893 lasted five years. None shown was less than two years. In all, twenty-four out of the sixty-three years are cross-hatched, so that approximately 38 per cent of all the years since 1860 have been marked as years of depression!²

Thus it appears that depressions during recent decades have been occurring twice as frequently as formerly, and that

¹ William A. Berridge, "What the Present Statistics of Employment Show," chap. iv of *Business Cycles and Unemployment*, published for the President's Unemployment Conference (New York, 1923), p. 59.

² Leonard P. Ayres, *Business Recovery Following Depression* (The Cleveland Trust Company, Cleveland, 1922), p. 24.

there has been no apparent diminution in the intensity of the fluctuation or in the duration of the depression period, as far as *employment* is concerned.

IV WIDE PREVALENCE OF CASUAL EMPLOYMENT

Seasonal and cyclical oscillations do not complete the description of the fluctuating character of employment, for purely casual and temporary labor is used a good deal in industry. Because this type of discontinuous employment is conspicuous in longshore work, building, mining, and other trades known for intermittent employment, it is not generally appreciated that casual labor is used in almost all other trades. Coal or other supplies may have arrived, it may be time to start shipping stock goods, or a rush order may have to be completed. On such occasions the superintendent may hire a dozen or more temporary workers who within a few days are released again. Department stores hire scores or even hundreds of workers for purely temporary service. Some periodicals hire employees at the beginning of each month for a few days' work in mailing the current issue.

The most acute example of intermittent employment is to be observed in longshore work on the water fronts of any large port. Recently the author spent some mornings around the Chelsea docks in New York City (Fourteenth to Twenty-third Streets), where the large liners come in, merely to verify the persistence of antiquated employment methods described in various accounts. Men were seen lounging around the terminal streets until, at the signal of a whistle by a dock official at eight o'clock, they assembled from all sides and formed the characteristic half circle or "shape" in front of the docks where work was available. On one dock two hundred men were hired in the brief space of five minutes. By the next morning the ship which they had helped to load had sailed. They were all out of jobs. Water-front employment involves hiring for extremely short periods—sometimes only for an afternoon.

The lightning selection of workers at various docks at the same time adds complications. The men in excess at any one "shape" cannot arrive in time for employment elsewhere. A

man who has been at the very first shaping-up at some dock, and has not secured employment, can try again at some other dock calling men later in the morning. He has to hustle around in this way among the docks because there is no way for the workers to know how many men a ship will need, or how many other men wanting jobs are lurking around in doorways, saloons, or vacant lots, waiting for the whistle to call them. The employers and the government have failed to provide an efficient clearing house for labor anywhere on the whole American water front except at the port of Seattle, where a few far-sighted dock owners have intelligently tackled the problem.¹

Evidence that in recent decades there has been improvement in continuity of employment in the casual trades has not come within the author's observation. Certainly, on the docks, on the farms, in the construction trades, and in many industries, the use of casual labor seems in its primitive state. In the bituminous coal mines conditions are bad. A handful of scientifically managed industrial firms in this country have practically overcome the problem of casual labor. In England some progress in the technique of providing steadier work for longshoremen has been reported. But the advance in this direction, as far as the evidences are available, does not seem to be significant enough to support the claim that employment as a whole has become more secure.

V MISCELLANEOUS CONDITIONS CAUSING INSECURE EMPLOYMENT

Aside from these customary disturbances in employment, numerous other factors are constantly interfering with the continuity of tenure. Thousands of business firms fail every year and trusted employees are set adrift. Changes occur in the management or ownership of plants which may result in the dismissal of many employees. When the Sugar Refineries Company, popularly known as the "Sugar Trust," took over twenty-odd refineries at the time of its organization in 1890, it closed and dismantled most of them, so that practically all the refining subsequently done was carried on in not

¹ The plan is described in chap. xiii, *infra*.

over seven establishments.¹ Labor difficulties in related trades, on the railroads, or in the mines may force plants in other industries to shut down. The apprehension of business men concerning governmental changes or the actual passage of legislative enactments, the making of war and peace, crop failures, and other natural disasters all play their part in the curtailment of industrial operations, and, by adding to the customary fluctuations in employment, keep the worker in continual anxiety as to the future of his job.²

Changes in the labor requirements of an industry due to the introduction of new processes, new machinery, or important inventions have been made much of as causes of unemployment. Such changes have been mentioned frequently because of the historical incidents associated with the opposition of spinners, weavers, printers, woodcutters, and others to the new methods which put their long-practiced personal skill to naught. Today the belief that the introduction of machinery and changes in method are of major importance in the problem of unemployment is seriously questioned. It is known that in some industries machinery has become much more productive, but in almost all cases the need for labor has increased with it, and where a decrease has resulted it has rarely been great.

Summarizing considerable evidence, there is good ground for the belief that in the great majority of instances where there is a reduction in the number of workers through introduction of machinery or new methods this is merely temporary. This hardly serves to comfort the worker who is displaced. Whether the numerical importance of the cause

¹ L. H. Haney, *Business Organization and Combination* (New York, 1921), p. 212.

² Banking and financial employments are less secure than is commonly supposed, as the following item from the *New York Times* of December 24, 1924, illustrates: "As a result of the bull market in stocks, which developed after the presidential elections of November 4th, more than 10,000 clerks have been added to the rosters of Wall Street banks and brokerage offices. In May of this year, when the stock market's activities ebbed to the year's low point, about 20,000 clerks and other workers were let out, some of these having lost their jobs with banks which were hard pressed to trim expenses because of the declining money rate."

is great or not, such changes occur continually, and workers who might otherwise not leave a position of their own volition are thrown upon the labor market to seek new employment.

In view of the various economic forces operating in industry, the personal characteristics of the worker are distinctly secondary influences in continuity of employment. Excellence of character, skill, and industriousness are no guaranty of security. The effect of personal factors shows itself usually in the incidence of unemployment. A normal result is the laying off of the less efficient workers at a time of diminished business. But efficiency is a relative matter. In boom times the employer sends special agents after the mediocre employee and auctions for his services. Then, after the employee has tried hard and "made good," a change of conditions may occur, and the employees who were hired by much persuasion a few months previous are fired. It should not be forgotten, also, that one of the vital reasons for inefficiency is irregularity of work. Thus the many cross currents in business make it a veritable maelstrom for any individual caught in its eddy.

VI LIMITED MOBILITY OF LABOR

But one who takes a more hopeful view of the situation may point out that a person who loses his job in one firm may, theoretically speaking, secure a new position the next morning. Thus insecurity of employment or short tenure of employment may not be inconsistent with the almost complete absence of unemployed time. This is a possibility. Is it the fact? And if it were true would that make the employment fluctuations of less importance?

A study of employment statistics shows that the amount of transference of employees even between plants within the same industry is much less than what one would suppose. This is seen, for example, in the facts already cited concerning the Cleveland Garment Manufacturers Association, which found that in the busiest week 803 out of 2,037 operators in the market were idle, or well over 65 per cent of the 1,234 employed in that week. This is the fact concerning a single

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trade. Transference between plants in different trades is much restricted. The evidence available shows that comparatively few persons find other employment.¹

Never is the number unemployed among those dependent on any industry equal to zero. Even if the figures of employment of trade-union members alone are examined, such a condition is approximated only rarely, although the closed or preferential shop existing in some industries makes for smaller reserves than the unlimited choice allowed to the employer in other cases.

In laying the emphasis on the fluctuations in the ranks of those employed in any one year, rather than on the amount of the existing unemployment, the situation appears much more favorable than it really is. If, for example, the fluctuations of employment in an industry during 1921 varied from 75,000 to 100,000, these facts by themselves tell us nothing of the 50,000 or more who may have depended on the industry for employment in 1920 and who may have been, in large part, utterly destitute in 1921. To calculate the total number of persons unemployed in any period, whether in an industry or in the community, we must add to the number of persons laid off those who did not have jobs at the beginning of the period because of illness, accident, schooling, or other circumstances. The total number unemployed at any time must always, therefore, be larger than the number shown to have been laid off because of cyclical or seasonal fluctuations or other variations in personnel requirements.

Few statisticians have attempted to calculate the full extent of unemployment in the whole country during a long period of time. Most surveys have been limited to the statistics of

¹ See Ernest S. Bradford, *Industrial Unemployment*, Bulletin 310 of the United States Department of Labor, 1922, p. 23. An important investigation made in Massachusetts in 1885 is cited in which it was found that of 241,589 persons reported as unemployed at their principal occupation during some part of the year, less than one-twentieth of the whole number were reported to have found work during the year at some other occupation. That the shift of workers from one industrial field to another was small in extent during the last depression was the conclusion of Dr. Willford I. King's statistical investigation for the President's Unemployment Conference. (*Business Cycles and Unemployment*, *op. cit.*, p. 98.)

a short period. One of the few studies of unemployment data for a long series of years has been made by Mr. Hornell Hart. In a table on the extent of unemployment, based on the piecing together of widely scattered information, he comes to the conclusion that the number of unemployed in the urban centers of the United States from 1902 to 1917, entirely omitting agricultural labor, for which he found no data available, was never less than 1,000,000. In 1914, a year of business depression, the minimum number unemployed was 4,000,000, in May; the maximum 5,500,000, in December. Mr. Hart concludes that the average number unemployed during the whole period has been nearly 2,500,000 workers.¹ For the sixteen years combined, the number unemployed has tended to be greatest in January, averaging three and one-third millions, and least in October, averaging less than two millions.² A report of the Russell Sage Foundation, given to the press on September 29, 1924, also asserts that in any year from 1,000,000 to 6,000,000 persons are out of work, depending on the conditions of prosperity.

It is thus seen that the fluctuations of employment described are not records of fluid transfers of workers from one industry to some other industry, but are profound movements that result in a vast amount of unemployment. But even if the unemployment was much less, the situation would lose little of its significance. For, as will be shown, unemployment is not the whole evil resulting from irregularity of employment.

VII INSECURITY THE CENTRAL PROBLEM

The main contention of this chapter, and, indeed, of this whole study, is that the main point of attack is not *unemployment*, but *insecurity of employment*. To achieve any real progress it is essential to recognize this vital distinction. Insecurity is the basic condition. Unemployment is but an incidental effect. It normally accompanies the instability of

¹ Hornell Hart, *Fluctuations in Unemployment in Cities of the United States, 1902-1917* (Study from the Helen S. Trownstine Foundation, Cincinnati, 1918), pp. 48-51.

² *Ibid.*, p. 53.

industrial life, but it may not. And though a man may never be unemployed, the frequent anticipations of the occurrence of unemployment may cloud his whole existence.

Unemployment does not follow when a man who has several times been thrown out of his position as a skilled worker finally decides to accept a permanently lower status in some other field. A woman harassed to distraction by constant fear of losing positions and the humiliations in seeking new ones may overcome the uncertainty of life by an otherwise undesired marriage. The fear and anxiety due to insecurity of employment, rather than actual unemployment itself, may decide whether the family shall allow Johnny to finish school or must send him to work; whether the risk of purchasing a modest home shall be undertaken; whether money in the bank shall be spent for a needed medical treatment or held against fear—and a thousand other decisions.

Statistics of unemployment are in one respect like accident statistics. The latter merely record the number of employees actually injured, not the many employees who were exposed to the danger which caused the accident and managed to escape. Imagine the plight of a group of workers who did not actually get hurt, but for a long time were forced to labor in a factory which they knew was likely, at any moment, to be set off by an explosion. Are not the workers in irregularly operating factories employed under an analogous condition? Should we not consider the feelings, the reactions of workers who work under such circumstances, or should we concern ourselves mainly with the best treatment of those whom industrial insecurity has actually thrown out of a job?

Wage-earners are said to acquire a callousness and indifference to hazardous environments that saves many from nervous breakdown, but few seem able to look forward to the possible destitution of unemployment with calm. In every social investigation portraying the intimate facts of the lives of the poor, evidence abounds to show how great is the curse of irregular employment, paralyzing the workman when unemployment is imminent and ever-present to the mind when it is more remote.

It is for good reason, therefore, that Prof. Leroy Beaulieu has declared: "It is not the insufficiency of pay which con-

stitutes, in general, and apart from exceptional cases, the social malady of today, but the precariousness of employment.”¹ It is in this sense that there is special significance in Professor Seager’s contention that “Of all the evils that befall the capable and industrious wage-earner, none seems so cruel and unjust as unemployment.”²

It is possible that the effects of insecurity of employment, both on the wage-earner and on industry itself, are more serious than those of unemployment. The effect of uncertainty upon any one individual may be less destructive than that of actual unemployment, but as the number of persons unemployed is at all times smaller than the number who are living in fear of it, the cumulative effects of the latter may well be greater. Moreover, the industrial conditions back of insecurity of employment are irregularity and discontinuity of operation. The economic wastes and losses accompanying such methods of conducting industry are enormous. It is worth while to consider somewhat more concretely what insecurity of employment and irregularity of operation mean, to the worker, to the employer, and to the consumer. Hence the next chapter attempts to show the effects of irregular employment, as distinguished from the obvious evils accompanying unemployment itself.

¹ Cited by A. C. Pigou, *Unemployment* (New York, 1913), p. 34.

² Henry R. Seager, *Social Insurance: A Program of Social Reform* (New York, 1910), p. 84.

CHAPTER II

SOCIAL AND INDUSTRIAL EFFECTS OF IRREGULAR EMPLOYMENT

I EFFECTS UPON THE WAGE-EARNER

IRREGULARITY of employment reacts in many tangible ways upon the life of the worker, affecting his income, his independence, his health, and his whole attitude toward industry and life. These consequences will be illustrated in the following pages, after which the effects of irregular operation upon industrial efficiency will be considered.

1 Complexities of Spending an Uncertain Income

There has been a good deal of discussion as to whether employees in irregular trades aggregate higher wages or lower ones than those in regular trades. With that issue we shall not concern ourselves because the emphasis belongs on another phase of the wage problem. This is the observed fact that the psychological behavior in spending an income that comes in spurts and is uncertain is so very different from the planned expenditure possible when income is regular and secure. Indeed, this difference is so important that ordinary wage comparisons between the two types of income are unrealistic.

Anyone who has been close to the poor knows that they live by the day or the week, not by the year. Only the middle class and those with expectations of certain, fixed incomes figure their expenses on a yearly basis. Even insurance is paid on the industrial plan, involving collections weekly or fortnightly by special insurance agents. The monthly rent bill is perhaps the longest time-obligation incurred. One can moralize that an employee who has for years experienced the irregularities of his trade should learn to balance his budget,

but the fact is that a large proportion of the workers do not. Many are incapable of doing so.

In this they are not different from those in higher strata, for people in all classes show the same characteristic of living up to current income and of failing to provide against lean months. This is frequently the case when current earnings are definite and fixed and there is less excuse for it. Many colleges which have changed from the ten-payment plan of paying salaries to the twelve-payment basis have done so to avoid embarrassment for some of the faculty who habitually find themselves out of funds in summer. How then expect the poor, with irregular incomes, to budget their expenditures evenly, to save for emergencies, and to accumulate funds for old age?

The income of the wage-earner is more than irregular. There is the added complexity that its total amount is uncertain. A part of the increased earnings in irregular employments at certain times represents pay for overtime or higher wage rates during the rush season. Surveys of earnings and budgets of working-class families show fluctuations of income as violent as those of a war stock market. The result of this seesawing of prospects with regard to annual income is a great unevenness in expenditure. At the rush season, when prospects appear bright for the moment, there is somewhat more freedom in expenditure, and outlays are made which the worker would not incur if he could see into the future. At other times vital expenditures are foregone which could have been made if the earnings subsequently secured could have been taken into account. Families living on an irregular income are thus unable to achieve the scientific weekly budgeting which a statistician could work out for them (after he knew what the income was). Through irregular employment, therefore, the workers with the most restricted incomes are prevented by the very conditions under which their earnings are received from using them to the best advantage.

2 Irregularity of Income More Frequent Cause of Pauperism Than Low Income

This inability to plan properly may force resort to the pawnshop or to loan associations, involving charges that

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further reduce the income. Or it may necessitate purchases on credit, with the usual mark-ups in prices. By such charges and others, the worker in an irregular trade finds himself much more troubled by his irregular income than the steady worker with lower average earnings. The time may also come when the period of unemployment is longer than expected and the usual resources do not avail. Then he may be forced to seek the aid of charity.

Thus there comes the significant result, noted in many social investigations, that *irregularity of income is a much more important source of pauperism than low wages*,¹ and that *mere irregularity of income leads to pauperism and dependence on charity when the same or a lower income distributed evenly would probably not*.

3 Irregular Employment and Accidents

In various studies of the cost of labor turnover it has been shown that accidents occur much more frequently among new men than among the regular employees.² This is to be expected, since a worker in a new job must adjust himself to the job and to the particular environment, and his knowledge of the dangers may come too late. The United States Bureau of Mines found in the records of two large metal mining companies that 20.5 per cent of all injuries occur during the first week of employment, and that 48.1 per cent occur during the first two months.³ An investigation recently published of the relation between labor turnover and industrial accidents in four factories making different kinds of products shows that the ratio among new employees was one accident to each person hired, while the ratio of accidents to the whole number of employees was only one to every four.

¹ The most authoritative and emphatic conclusion to this effect is contained in the minority report of the *Royal Commission on Poor Laws and Relief of Distress* (London, 1909), vol. xxxvii, pp. 1150-1151, but it is also found quite generally in the reports of charity organizations in America.

² Illustrations of the excessive frequency of accidents among new men are contained in Sumner H. Slichter's *The Turnover of Factory Labor* (New York, 1919), pp. 137-140.

³ *American Labor Legislation Review*, September, 1924, pp. 249-250.

The estimate is made that if labor turnover could be reduced to zero, accidents would probably be reduced to about 25 per cent of the present number.¹

The employee who is laid off every few months or sooner and forced to seek a new position or a new trade is thus exposed to a much greater risk of injury than the one who is allowed to become experienced in a particular environment. This victimization has a social as well as a personal significance. Some of these accidents imperil the safety of the public, as, for example, the higher frequency of street-car accidents in which new motormen figure.²

4 *Irregular Employment and Health*

There are numerous other effects of irregular employment not generally known, as on the health of the worker. A medical study of tuberculosis among granite workers shows that irregular employment causes the worker to lose his adaptation to dust and thus to weaken him when he resumes his job. If a granite worker is employed regularly, he acquires an adaptation of the respiratory tract to dust inhalation by which dust is tolerated and the adaptation acts as a defense. When a worker leaves his employment for a while, the adaptation begins to be lost. The resumption of work irritates the respiratory tract until adaptation is again acquired, and this may cause a breakdown. It is during this period that tuberculosis is most likely to be superimposed, so that it may be said that it is not granite dust which is the sole cause then, but the discontinuous nature of the work.³

In only a limited number of cases can direct physical evidence of the effect of irregularity of employment on health be secured. Anxiety may affect the digestive tract or depress every bodily activity. The effects may be so intertwined with other factors in the person's circumstances that the

¹ Harry D. Kitson and Claude Campbell, "Relation Between Labor Turnover and Industrial Accidents," in *The Journal of Industrial Hygiene*, July, 1923, pp. 92-96.

² Sumner H. Slichter, *op. cit.*, pp. 137-140.

³ Dr. D. C. Jarvis, of Barre, Vermont, "The Upper Respiratory Tract in Granite Dust Inhalation." Reprinted from the *Transactions of the American Laryngological, Rhinological and Otological Society*, 1922.

injury is not easy to disassociate from the other elements. One of the greatest advances in the science of health during the past few decades, however, has been the emphasis on the psychic factors in bodily ailments. Their presence may be hard to demonstrate, but their effects are there. It is in the nervous system that insecurity probably works the most havoc with the health of the wage-earner.

The worry is, of course, intensified when the blow actually falls and unemployment, with the possibility of starvation, faces the family. A public statement of the Children's Bureau, of the United States Department of Labor, describes some appalling conditions found in the bureau's investigation of child welfare during the industrial depression of 1922. Besides the deprivation of material needs, family morale suffers terribly—"the father idle about the house, unsettled, disheartened; the mother going out to work if she can secure it; the children suffering from the depression and uncertainty of what the future may mean, which is even more to be dreaded than the discomforts of the immediate present."

The effects of unemployment, however, need not be treated because so amply discussed in the many studies of this subject. It will be assumed that they are known. It does not require so much imagination to picture the social consequences of actual destitution as it does to see the effects of insecurity. The record of unemployment can be read, in part, in the augmentation of petty crimes, robberies, and acts of violence in all classes following periods of depression, and in the swollen records of charitable organizations.¹

¹ "The men and women are few who can long continue a search for work without developing a malignant inferiority complex. Nor can many who feel secure in positions confront an unemployed brother without secret recognition of their own superiority. Thus in his own eyes and in those of his fellows the unemployed man is pushed farther and farther away from the status and the group with which his previous identifications have been made. . . . The sequence of events is as follows: Unemployment; the breaking of identifications with the society of occupied persons; the formation of identifications with a group of idle persons; the acceptance of standards prevalent among the latter; the physical and mental deterioration resulting from these new and debased standards." Stuart A. Rice, "Psychological Effect of Unemployment on the Jobless Man," in *The American Labor Legislation Review*, March, 1925, pp. 47-49.

Idle time represents a tremendous loss of perishable labor power. A startling illustration of the waste in the one industry of bituminous coal mining is the estimate of two experts, that from 1900 through 1919 the total amount of time lost by coal miners of the country because the mines were shut down was one and one-sixth billion working days. They calculate that this loss was equivalent to the maintenance of a standing army of 190,000 men throughout the whole twenty years, or equal to the man days of productive effort lost in mobilizing our military and naval forces from the beginning of the war to the day of the Armistice.¹

II BUSINESS LOSSES OF IRREGULAR OPERATION

The evil effects of insecurity have their counterpart in vast business losses to the employer, resulting from the wastefulness of irregular operation. The purpose in the next few pages is to touch upon some of the outstanding losses of discontinuous production.

In a typical industrial enterprise the three main classifications of expenditures are overhead cost ("factory burden"), labor cost, and cost of materials. Irregular operation results in a much higher labor cost than regular operation and a particularly heavy loss in overhead cost. There may also be some loss in the cost of materials due to money investment lost in materials not put into production and to depreciation and waste of such materials.

1 *Increased Overhead Cost*

The added costs of overhead in a business irregularly operated are the most tangible and measurable of all losses sustained. First there is the loss of idle capital. Every fair-sized firm requires certain outlays for land, buildings, equipment, and other facilities, which may cost thousands of dollars or millions, depending on the type of industry. When the plant is idle this investment is not being put to productive use, and may, therefore, be said to bring a loss of at least the equivalent which the money would bring in interest.

¹ F. G. Tryon and W. F. McKenney, "The Broken Year of the Bituminous Miner," in *The Survey*, March 25, 1922, p. 1011.

Added to these charges imputed to idle capital, there are the actual fixed running expenses which go on even when a plant is completely shut down, such as taxes, rent, insurance, and similar payments. Of course plants are rarely completely idle, but that does not necessarily lighten the burden. A plant partly in operation may involve losses greater than one shut down. Lighting, heating, and other maintenance charges may be practically the same, although a plant is at 50 per cent or less of its normal production.

During even the worst periods of depression certain overhead charges for salaries and wages cannot be avoided. Some executives and most employees may be dispensed with, but there is an irreducible minimum which must always be available if the firm expects to stay in business at all and be ready for a change in conditions. The fixed officers, indeed, have harder work at such times than at others, as their energies are bent to keep the business from collapsing. The maintenance force, such as watchmen and porters, may be reduced only slightly when the plant is in partial operation. The cost of clerical work is very little reduced. The clerk who enters orders may have to write an entry of 300 instead of 900 in the column denoting the quantity ordered, but his work may be the same and cannot be dispensed with. The production supervisor of a large steel plant told the author that when production was cut to 30 per cent of normal, during the depression of 1921, the clerical staff in the production department remained at not less than 85 per cent of the former requirements.

The importance of these overhead charges may be illustrated by comparison with the wages of direct labor. In cotton spinning the factory burden nearly equals direct labor cost. In the boot and shoe industry it is almost seven-eighths of direct labor.¹ In a large harvester company the fixed charges are normally from about 100 per cent to 115 per cent of direct labor cost. When this plant reduced its force from 35,000 employees on the payroll during the boom period in 1920, to about 8,000 employees during the depression, the overhead rose to as much as 250 per cent of the direct labor

¹ Edward D. Jones, *The Administration of Industrial Enterprises* (New York, 1920), p. 169.

cost. Yet it has been observed by many persons of experience that idleness of equipment is one of the most common characteristics of industrial operation.

The losses of irregular operation in coal mining are shown in a striking study made by the Engineers Committee of the United States Fuel Administration in 1918-19. The accompanying diagram, Fig. 2, represents an analysis of the

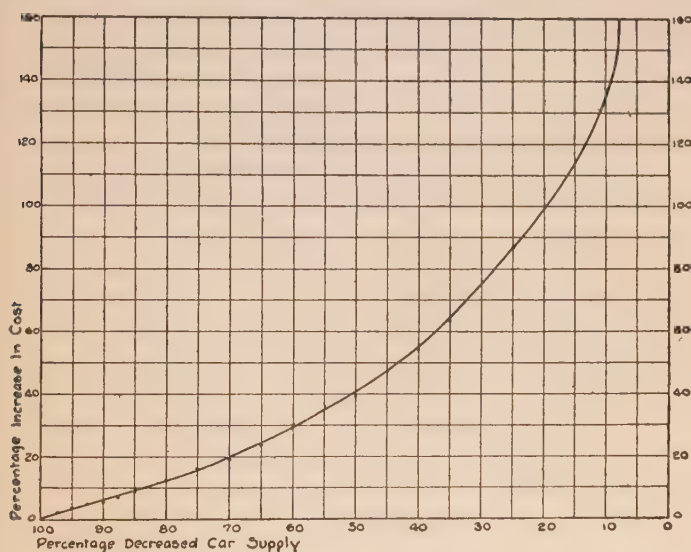


FIG. 2. EFFECT OF IRREGULAR WORKING TIME ON COSTS

Relation between decreased car supply, causing temporary shutdown of mines, to cost per ton of coal produced

From the Report of the Engineers' Committee of the
United States Fuel Administration

monthly records of seventy-three operators in the New River district of West Virginia. It shows that because of the idleness of capital, the deterioration of mine equipment, the continuance of fixed charges, etc., there is a mathematical relation between the cost of production per ton and the decrease of working time. The special cause of irregular working time, selected for analysis, was car shortage. But any other cause of loss would presumably have affected cost per

ton in the same way, for it is, of course, not the cause of the interruption which raises costs.

Many employers in irregular trades seem peculiarly unwilling to reckon with the problem of overhead losses, keen as they are about other wastes. If an employer were to observe his workers coming in a few minutes late or going home earlier than the set time, he would not only be likely to question such practices at once, but might become highly incensed. The waste seems direct and tangible to him, and action to stop it will probably be vigorous and immediate. If the employer could personify his machines and see them sitting idle all day with folded arms, perhaps so for weeks or months, yet drawing money from him merely because they are there, discontinuity of operation would become a sore spot that would stimulate him to think of remedies.

2 Increased Labor Cost

The loss to the employer in an augmented labor cost through irregular operation may be seen by various evidences, some tangible and others intangible. The most definite is the higher daily or hourly wage paid in irregular trades. In making this statement the author does not intend to take the stand that workers in irregular trades earn a higher income than those of the same class employed regularly. There seems more truth in the view that such workers constitute a sweated class, held to their employments by the illusive level of higher daily wages, and that the workers in seasonal and casual employments earn less by the year than they would in other employment for which they are suited. It must be understood that while an employer in an industry using labor irregularly may be paying a higher wage rate for the time worked, the wage-earners so engaged may nevertheless be earning a lower income by the year than they would if they worked regularly.

There is considerable evidence available in the files of firms and trade associations that irregularity of employment increases wage rates. In a certain clothing center a private memorandum report prepared for the employers' association shows that one group of houses engaged in special-order work

have always paid higher rates for the same work than the group in the ready-made trade. In the table of figures cited, showing a difference of 5 per cent in wage rates between these two groups, it is explained that there is 10 per cent difference in the amount of employment afforded by the two groups, and this is held to account for the difference in wage scales.

Individual employers have found this difference in making comparisons with other centers. The following excerpt from a letter by the president of a large shoe concern¹ is illustrative of the conditions found:

Comparing the annual earnings of our factory operatives with reports issued by the Massachusetts Labor Department indicates that our employees in St. Louis for the year 1920 earned an average of about 25 per cent more than that paid in the cities of Brockton, Haverhill, and Lynn. While no doubt the daily earnings of the operatives in these cities while they were employed were larger than our daily schedule, the fact that our operatives were given employment for every week day in the year made their earnings much better than the Massachusetts manufacturers were able to pay on account of interruption of their operations.

This means that these employers really are paying what amounts to extra wages for idle time. A competent mine manager states that while it takes not over half an hour and often less for a miner to mine and load a ton of bituminous coal, yet he gets \$1.28 for this where union rates prevail. This makes the pay equivalent to between \$2.50 and \$3 per hour, a higher hourly rate than even the mine superintendent is paid. Of course the miner is not earning an annual income anything like the level implied, because he has so few hours of work.²

3 *Restriction of Output*

Besides the higher wage rate paid for irregular work, the employer's labor cost is higher through the reluctance of the

¹ Mr. Jackson Johnson, chairman of the board, of the International Shoe Company, St. Louis, Mo.

² Hugh Archbald, *The Four-Hour Day in Coal* (New York, 1922), p. 113.

employee to give him the fullest co-operation in production. The economic philosophy of the individual in an irregular trade is a peculiarly human thing. The worker knows the busy season will soon be over. He sees a good deal of work in the factory now, but who knows how long the slack season will be? The instinct of thrift, of saving up for the rainy day, runs counter to any inclination toward industriousness. The worker not only slackens his pace, but often conspires to defeat the aim of efficient production. Though this purposeful slackening of effort is subtle and elusive, there are few employers who do not sense its existence. The fellow-feeling of the workers in opposition to the employer is independent of union organization. Some of the restrictions of output are handed down from one generation of workers to another. The written or customary restrictions set by trade unions are a comparatively minor part of the workers' reluctance to give maximum cooperation, but they embody the pervasive philosophy of *ca' canny* in concrete form.

4 *Impairment of Skill*

Discontinuity of work impairs the worker's skill even when he has the best intentions. What would be the efficiency of an athletic team, with men in the prime of health, if they did not practice regularly? To put them in condition for efficient performance weeks or months of preparation are found necessary. There is a familiar saying by a noted musician to the effect that when he had not practiced for a single day he noticed it in his playing, that when he had not practiced for two days his friends noticed it, and when he had not practiced for three days his audience noticed it. Numbness of fingers and the condition of the muscles play a similar part in the efficiency of most workers, and only when they have worked regularly at their occupation can they give their best performance. An official of the Bricklayers' Union states that a mason becomes soft and muscle bound when unemployed, which slows him up when back at work.¹

In plants where scientific standards of production and accurate records are available, the effect of idleness upon the

¹ *Waste in Industry, op. cit.*, p. 85.

worker's efficiency when he resumes work can be measured definitely. In one plant it was found that an absence of weeks from a job on which the worker had been employed for a long while impaired speed so much that special wage adjustments were made in certain cases to keep workers from becoming discouraged at the beginning.

This shows the absurd situation with regard to the productivity of labor in seasonal industries. The cycle of seasonal productivity begins with the slack period. At this time many workers are totally unemployed. Then comes the beginning of the season, when the workers are much below their average efficiency because they have been idle and are out of practice. In the early stages they have difficulty in making the normal standard. After a few weeks they reach their stride, and probably for a brief period they work energetically to earn all the money they can. But since very soon the amount of work on the racks becomes less imposing, the better workers begin to hold back in order to lengthen the work period. This peculiar seasonal cycle, occurring once or even twice every year in seasonal trades, may be summarized as follows:

<i>Condition of Trade</i>	<i>Productivity of the Worker</i>
1. Slack time	Unemployed; no production
2. Beginning of season	Efficiency impaired because out of practice; subnormal production.
3. Mid-season	Efficiency at highest point; maximum production.
4. Slack season approaching	Efficiency inhibited by fear of unemployment, by social pressure, etc. Restricted production.

Aside from the effect on individual workmen, the efficiency of the labor force as a whole is impaired in another way. When a firm lays off its workers, the very efficient ones are likely to procure work elsewhere and be unavailable when the firm wants them back, while those of mediocre ability or less

appear bright and early when called. If a highly efficient worker is given discontinuous work, he may leave the trade altogether. Loss of skilled workers through lay-offs is so patent a fact of discontinuous operation that firms producing articles of quality have a most compelling reason for finding something for their workers to do during slack.

The productivity of labor has a direct bearing on overhead cost. If labor efficiency is low, a firm must hire more employees to get out the required production in the busy season. This involves provision for more factory space, more equipment, and other facilities. The plant able to spread out production evenly and to retain its labor force on a permanent and efficient basis tends to require a smaller force and a smaller overhead for a given volume of output than a plant operating discontinuously.

5 Cost of Labor Turnover

The continued loss of trained workers makes it necessary to hire new workers, involving a whole chain of costs which could be avoided if the workers were not changing so much. The machinery of hiring workers alone necessitates the interviewing of a much larger number than will be employed, medical examination, perhaps, correspondence concerning references, entry on payroll records and other clerical costs, as well as introduction to plant conditions. These new employees frequently require special training, and, in all cases, a certain amount of instruction. Estimates as to the cost of labor turnover have ranged anywhere from \$50 to as much as \$350 per person hired. Often such figures are lower than justified because they do not take into account every cost of the training department, including the rent of the space occupied for training, and other overhead factors.

Such estimates cannot accurately judge the irregular and intangible costs, such as the errors for which a new employee may be responsible and the damage he may do. An employee who knows his tenure is likely to be short is naturally less careful of tools, harder on the machines he operates, more wasteful of materials. He is said to cause more accidents

and to be the victim of more accidents than the regular employee.

The cementing of cordial relationships between employer and employee, allowing for greater mutual confidence and for reasonable attitudes on both sides, is secured much more easily when the bond between the two is allowed to become one of long standing. Temporary employees and those who have no assurance of any continuity of the job can have little attachment to a firm where they happen to be employed. They cannot regard its interests as their own. There are good grounds for the conviction in many quarters that unreasonable demands, strikes, and other indications of friction are more likely to occur in industries where employment for the great mass of the workers is not secure. The assertion seems to be supported by statistical investigations.¹ A study of the plants where the spirit of harmony is exceptional makes the conclusion inevitable that security of the job has been in large measure responsible.

6 *Losses Revealed by Modern Cost Accounting*

Few firms really understand what idleness means to them because so few keep the right kinds of records with regard to production costs. Some years ago an agent of the Tariff Board visited sixteen concerns in the knit-goods industry to determine the cost of their output, and none of them knew what it cost him to produce his goods! No accurate records existed in any of the establishments. The ideas of the owners were vague and hazy on the cost of production, and even more so as to how to get at it.²

In many firms accurate accounts of proprietorship exist, showing assets, receipts, expenditures, profit and loss, but

¹ Cf., Prof. C. W. Doten, in a statistical study on "Strikes and Lockouts in the United States," concludes that "a very large proportion of strikes in recent years have occurred in seasonal and irregular occupations, such as the clothing industry, coal mining, and the building trades." He maintains that strikes are not only most frequent in the irregular occupations, but most prolonged. (Chap. xii, of the report of the Committee on Waste, *op. cit.*, pp. 301-314.)

² William C. Redfield, *The New Industrial Day* (New York, 1912), p. 25.

not cost accounting. While the past decade has seen considerable progress in the development of accounting methods, business is still very backward in this phase of control. An investigation in 1921 found that "The majority of the industrial plants studied lack a knowledge of costs and have no cost control. . . . Not having the facts prevents prompt correction of defects."¹ Cost accounting is of recent origin. It is the daily working tool of the production executive and the general manager rather than of the financier. It endeavors to reveal the relation between cost and production in detail by ascribing to each unit of goods or services produced all the direct and indirect expenses properly involved. This affords the opportunity to show up the losses of discontinuous operation and defects of management, and has been aptly called a sort of stethoscope of the internal conditions of a business. The right system of cost accounting brings out strikingly the wastes of irregular production, and if in more general use, would focus attention on the losses involved.

The concerns which have regularized employment appreciate the losses of irregular operation keenly, including those not accurately measurable. Mr. Jackson Johnson, chairman of the board of the International Shoe Company, is of the belief that no manufacturer knows just what it really costs him to close down a factory and start up again. It is his opinion that to close a factory for thirty days would mean destruction of the profits for six months. He states this is a mere estimate, for his company has never allowed itself to try this luxury and thus has not had occasion to analyze the cost.

One large metal mining company which was about to shut down its plants for a while did analyze the cost. It found that it would have cost between \$500,000 and \$600,000 for the company to shut down and to start up again. The result was the decision not to shut down, even though a loss was being sustained in continuing operations.

An example of intuition that overcame the difficulty of demonstration in dollars and cents is that of Andrew Carnegie. His success was due, in part, to more regular operation than his competitors. Carnegie realized that if he did

¹ *Waste in Industry, op. cit.*, p. 13.

not run his plants at all he would lose a large sum of money each year. He therefore decided he would be better off to lose that money continuing operations in his plants and selling at prices at which he could not make money, for at least he would be able to keep his organization ready to take advantage of new business when it came. In the early nineties, when there was strong rivalry among the steel companies, Carnegie ran his plants, while the Illinois Steel Company and other competitors preferred to shut their plants down. Their organizations were thus broken up while Mr. Carnegie was ready to take immediate advantage of any business offered. The advantage thus gained made Carnegie practically the master of the steel industry in this country.¹

In the final analysis, however, regularization of employment is an end to be striven for, whether increased profit is made thereby or not. The attitude shown in expressions by the better industrial leaders does not put maximum profits as the sole guide to policy. In describing the steps that have made it possible for the Procter & Gamble Company to offer a guaranty of employment and other benefits to the employees, Col. William Cooper Procter, in a booklet issued by the company, states the attitude well, as follows:

While the above statement as to the value to the company of conducting its operation in the manner it does is beyond question, I have no doubt that none of them, separately or all of them combined, would pay if inaugurated by a corporation for the purpose of making profit out of them rather than the higher motive of right dealing with its workers.

III BURDEN BORNE BY THE CONSUMER

The losses of irregular operation are in large measure shifted to the consumer, who pays the cost in a higher price for the product. This may not be the case to as great an extent in the future, for as employers acquire more confidence in their ability to maintain continuous production, they will be able to pass on the lowered costs competitively to the public.

¹ H. L. Gantt, *Industrial Leadership* (New Haven, 1916), pp. 118-119.

An estimate of the higher prices thus forced upon the consumer may be illustrated by bituminous coal. Mines do not normally shut down completely during slack. They maintain a nucleus of employees, part of whom are on monthly pay roll. The effect on the cost of coal, as measured by the United States Coal Commission and reported to the press on September 12, 1923, is as follows: Taking the month of twenty-five working days as full-time operation, when the mine works sixteen days, four days per week, the cost per ton is increased 8 to 9 per cent; when working time is twelve days per month, the unit cost is 21 to 25 per cent over full time or minimum cost; and when but eight days per month is worked, costs increase fully 48 per cent.

The subject need not be exhausted to prove beyond doubt that irregularity of employment is a matter of utmost concern to the worker, to the employer and to the general public. The urgent need of improvement must be admitted by all. Within the past few years the matter has come to public attention as a vital national problem. The question is: What can be done about it? Must the evil of irregular employment be tolerated, can it merely be mitigated, or can it actually be eliminated?

IV SHORT TIME FLUCTUATIONS THE STARTING POINT

Some of the causes of irregular employment are more stubborn than others. The purpose here is to indicate where the most profitable fields of experiment and endeavor to regularize employment lie.

There is a dramatic aspect to the unemployment caused by the universal catastrophe of cyclical depressions that makes it seem an evil of much greater importance than seasonal and daily fluctuations. Just as an operation for appendicitis or an attack of influenza seems worse than some chronic systemic weakness, a depression attracts attention, while days of idleness do not. If one could segregate the amount of unemployment caused by cyclical depressions during a long period of years and compare it with the aggregate of dislocations produced by the many smaller oscillations of

employment within each year, he would probably be astonished at the relative importance of the latter irregularities.

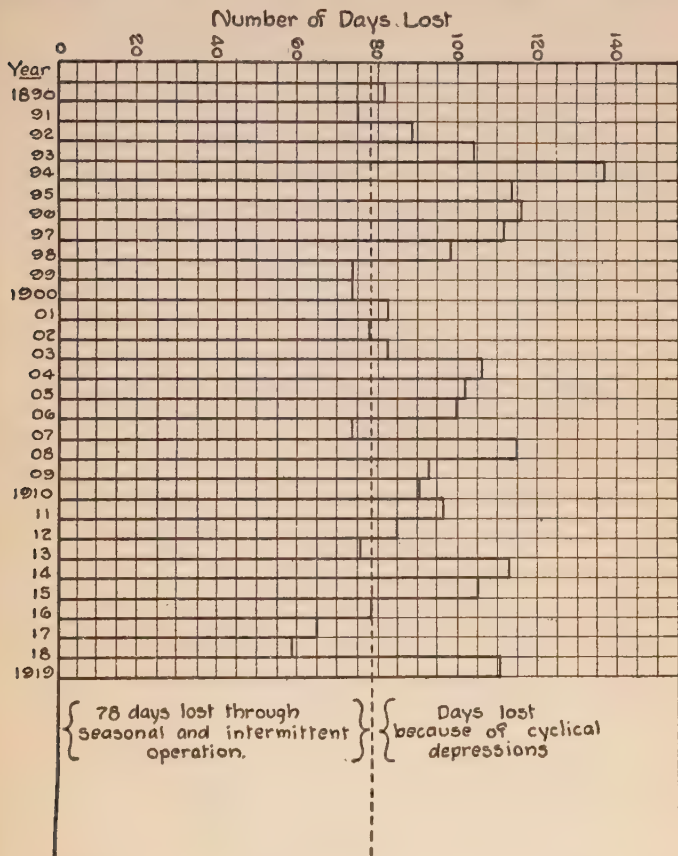


FIG. 3. NUMBER OF DAYS OF IDLE TIME IN THE BITUMINOUS COAL MINES, 1890-1919

(From figures supplied by the U. S. Geological Survey)

A study of days lost in the bituminous coal-mining industry illustrates this point concretely. Dr. George Otis Smith, director, and Mr. F. G. Tryon, geologist, for the United States Geological Survey, have made available a chart show-

ing the number of men employed per year during the whole period 1890-1919, and the days lost each year. Facts based on this chart are presented in Fig. 3. It is seen that only two instances—the war years of 1917-18, are found in which the time lost has been less than 74 days, although many other years in prosperity and boom periods were included in these 30 years. Barring the exceptional war needs existing in 1917 and 1918, the authors conclude that this points significantly to a figure of around 78 or 80 days as the measure of the minimum loss which no ordinary increase in general prosperity is likely to remove. With this minimum as the basic loss in all years, days lost above this minimum are held to be due to cyclical fluctuations. The authors state that:

If we imagine all the columns beheaded at the 78-day line, the sum of the cut-off ends would be the measure of the loss caused by annual fluctuations, and the truncated stumps below the 78-day line would be the measure of losses due to other causes; these may be called the seasonal and daily losses. This division of lost time means, then, that out of the average loss of 93 days a year, 16 days were due to extraordinary annual fluctuations in demand, chiefly fluctuations following business depression.¹

That these greater losses occurring year after year are mainly due to seasonal and daily fluctuations of production and only incidentally to strikes, is brought out in a later diagram in which it is shown that the days lost in strikes in the industry during 1910-18 were less than 11 per cent of the total time lost.²

Economists have not failed to recognize the great importance of customary irregularity of industry. Doctor Rubinow states that "perhaps it is no exaggeration to say that, in the final analysis, the 'normal' amount of unemployment that always exists is productive of even worse results in the undermining influence it exercises upon the general standard of life of the working classes" than the unemployment of economic crises.³ Professor Seager, after describing some of

¹ George Otis Smith and F. G. Tryon, "Fluctuations in Coal Production—Their Extent and Causes," in *Mining and Metallurgy*, March, 1920, p. 12.

² *Ibid.*, p. 26.

³ I. M. Rubinow, *Social Insurance* (New York, 1913), p. 451.

the chaotic conditions of industry, states that "it is this irregularity in the requirements of industry from month to month that is the chief cause of unemployment."¹ Professor Willits states that "in the long run, this permanent or 'chronic' unemployment totals larger than the unemployment of the severe industrial crisis. This is true because the former exists continuously, year after year, whereas a crisis usually occurs only once in a period of five, eight, or ten years."²

It is one of the fortunate aspects of cyclical depression that just preceding it there usually is a period of labor shortage, high profits, high wages. These and other conditions make for more self-confidence and a greater evaluation of one's worth on the part of individuals, and allow for the accumulation of a greater financial reserve against hard times than is customary. It has been frequently pointed out in the press that during the earlier part of the depression of 1921 the savings of the wage-earners remaining from the boom times were their salvation. A single great calamity occurring once in a long while is perhaps easier to bear with fortitude and hope than the endless recurrence of trouble and ailments, which, in terms of unemployment, is the plight of the wage earner in the seasonal and chronically irregular trades.

Short-time fluctuations should be made the starting point in the attack on the irregularity of employment. Constructive effort, based on intensive research, should, of course, be exerted to analyze and control cyclical movements, but the opportunity for immediate practical progress lies in the regularization of the more chronic types of fluctuations. Some of the reasons for this approach, expressed in part as a comparison of cyclical and seasonal depressions, are indicated in the following paragraphs:

(a) Cyclical depressions occur once in a period of years, and their occurrence is not yet predictable with certainty. As they are separated by intervals during which the memory

¹ Henry R. Seager, *Social Insurance: A Program of Social Reform* (New York, 1910), p. 89.

² Joseph H. Willits, *Philadelphia Unemployment* (Philadelphia, 1915), p. 15.

of the anguish of the last crisis becomes hazy, the pervasive optimism and high prosperity of the new markets tend to disperse the high resolves made in previous moods. Seasonal depressions occur every few months and their arrival is anticipated. They are an ever-present problem. Casual employment is a daily practice. Therefore, while the testing of experience and methods to overcome the cyclical problem may require decades, efforts to eliminate the irregularity of employment due to seasonal variations in production and casual methods of hiring may result in early success and secure an almost immediate reward.

(b) The elimination of cyclical fluctuations may require national action, world-wide cooperation, and fundamental modifications of the economic system. Seasonal fluctuations and casual employment, however, are almost always susceptible to some improvement by the technique applied by a single employer or by a group of employers. Such short-time fluctuations may even be completely eliminated solely by the independent efforts of an individual firm.

(c) Cyclical fluctuations are not generally understood and require some familiarity with economic theory. Seasonal variations are within the range of understanding of all, and the problems involved are fewer and simpler than those in the reduction of cyclical variations.

(d) The ironing out of seasonal fluctuations would of itself make the problem of preparing against cyclical depressions easier, especially since it would tend to eliminate that coincidence of the two types of fluctuations which causes intense suffering. Seasonal unemployment and other short periods of idleness work havoc with schemes of unemployment insurance, by draining the funds that would otherwise accumulate during good years against the more cataclysmic calamities. If seasonal unemployment is reduced to the minimum, therefore, the relief aspect of cyclical unemployment is simplified.

(e) Of special importance is the fact that the type of intelligence required to overcome the seasonal problem is an excellent preparation for the more difficult program of reducing cyclical fluctuations. An economist and industrial manager who has studied the efforts of various firms to

regularize employment makes the significant statement that no manufacturing concern has been able to grapple effectively with the problem of cyclical disturbance of business which has not first learned how to deal successfully with seasonal fluctuations in the demand for its product.¹

The educational value of tackling the seasonal problem is, therefore, the most potent reason for making this the starting point in the attack on unemployment. Certainly, if it is impossible to make any headway in reducing the woeful inefficiency of dock labor, or in taking the seasonality out of the manufacture of cast-iron pipe (one of the most seasonal industries!) we cannot feel hopeful of profoundly affecting the course of business cycles. The firms which have gone farthest in overcoming seasonal variations in employment have, on the whole, done best in reducing cyclical fluctuations. The author has not overlooked the subject of overcoming cyclical fluctuations, although a great deal more attention has been given to the problem of overcoming seasonal irregularities.

It will be helpful at this point to review the programs advanced by various official commissions, economists, and publicists to solve the problem of unemployment. The discussion here limits itself to the remedial programs and analyses made largely within the last fifteen years. In this short time there has been a development of no small consequence.

¹N. I. Stone, "Methods of Stabilizing Production of Textiles, Clothing and Novelties," chap. ix of *Business Cycles and Unemployment*, a report by the President's Unemployment Conference (New York, 1923), p. 116.

CHAPTER III

THE NEW AMERICAN EMPHASIS IN THE ATTACK ON UNEMPLOYMENT

I THE ATTITUDE OF THE PAST

1¹ Early American Studies

A MOST significant change has taken place during the past few years in the analysis of methods of solving the problem of unemployment. If the views of economists and official commissions of ten or fifteen years ago are compared with those of the past few years, the contrast is indeed striking. Thus, in the report of the Wainwright Commission, which made a thorough study of the subject only fourteen years ago, there was not even a hint in the sections on Remedies, Recommendations, and Conclusions ¹ that unemployment might be due in part to indifferent and planless management prevalent in various firms, and the suggestion was not made that some employers could cut down the irregularity of their operations by improved industrial technique.

The chief recommendations of this commission, like those of its predecessors in many lands, were: first, the establishment of a system of public employment exchanges—a partial remedy on which it is possible to pin too strong and naïve a faith; second, the directing of children into promising employment—which is important enough for other reasons, but which will have little effect in solving the unemployment problem; and third, the long-time planning of public works

¹ New York Commission on Employers' Liability and Other Matters. Third Report. *Unemployment and Lack of Farm Labor* (Albany, 1911), pp. 65-69.

by the state and city governments—a desirable policy, though particularly intricate under the conditions of American political government, and so not a first step which has promise of immediate returns.

The restricted point of view of the time may be seen, for example, in the testimony of Mr. Lindon Bates, Jr., a construction engineer interested in the unemployment problem, who was one of the principal witnesses called at the commission's hearings. In response to the request for his constructive suggestions, he said: "Since these are the only two conceivable alternatives, it might be recommended, first, that the state undertake as a definite policy to hold some big public work of a public utility in reserve against hard times; and, second, that this commission frame as good a bill as is physically possible, for labor exchanges."¹

The evidence on the point is considerable. On December 27, 1911, Prof. Charles R. Henderson addressed a communication to the mayor of Chicago, which led to the appointment of the Mayor's Committee on Unemployment. In this communication Professor Henderson submitted a detailed outline of the various aspects of the subject which it would be well to investigate, but no suggestion was included concerning the desirability of studying what management could do to reduce irregularity.²

As a background for a discussion of proposals quite different from the "only two conceivable alternatives" which Mr. Bates mentioned, a brief review of remedies proposed in recent years will be presented, to show the real advance which the change in emphasis indicates.³ Following that, a more comprehensive analysis of the causes of unemployment, as brought out in various studies, will be attempted.

¹ New York Commission on Employers' Liability, *op. cit.*, p. 172.

² Mayor's Commission on Unemployment, *Report* (Chicago, 1914), pp. 6-7.

³ Dr. William M. Leiserson's splendid article on "The Problem of Unemployment Today," in the *Political Science Quarterly*, March, 1916, pp. 1-24, is a comprehensive summary of unemployment theories and programs to that time and is the more valuable because of the practical comments made on the various proposals by one who is a leading authority on the subject.

2 English Studies and Programs

The greatest labors in the study of reducing unemployment were undertaken in Great Britain by the memorable Royal Commission on the Poor Laws and Relief of Distress, which delivered its main report in 1909. A major portion of its work dealt with the relief of the able-bodied, and the commission was, therefore, led into an inquiry as to why so many able-bodied persons were always unemployed, and what should be done about it. Its investigations secured the cooperation of some of England's greatest thinkers.

The most noted single contribution to the subject at that time was the paper presented to the commission by the now Sir William Beveridge, then chairman of the Employment Exchanges Committee of the Central (Unemployed) Body for London. It is this paper, later expanded into a book with the title *Unemployment—A Problem of Industry*, which, in the opinion of the Webbs, contained a discovery which was "perhaps the most momentous of this generation in the realm of economic science."¹ Certainly, it forms the starting point of the modern program of alleviation, and its influence has been extraordinary.

Beveridge begins by dispelling some of the old notions. Unemployment is not due to overpopulation, immigration, changes in the gold supply, and other disturbing factors, but to cyclical fluctuation, seasonal irregularity, and other maladjustments of the industrial system. The existence of a large body of unemployed persons at all times cannot be attributed to the fact that some may be superannuated, lazy, mentally or physically deficient, or lacking in special training. "The inquiry must be one into unemployment rather than into the unemployed." Unemployment is the result of other factors. It merely reflects the disorganization rampant in the industrial system.

Beveridge makes the situation vivid by describing casual employment at the water fronts. The number of men required by individual docks varies from day to day, depending on whether a ship has arrived in port. Some docks are busy at

¹ Sidney and Beatrice Webb, *The Prevention of Destitution* (London, 1911), p. 130.

precisely the same time that other docks are slack; never are they all in need of a maximum number of men at one time. But the individual docks do not draw upon a common fund of labor by sending the same men to various points on different days. Because of the lack of organization of the labor market, each dock employer builds up his own reserve of labor, which is idle during a period of slack and becomes what Beveridge calls a "stagnant pool." The aggregate of workers in these "stagnant pools" is naturally far in excess of the maximum requirements of the water front as a whole at any one time. Some of the laborers get employment at other docks when they find their accustomed ones slack, but such mobility is greatly restricted because of various conditions. The one thing needful, therefore, is provision for a greater fluidity of labor, so that it will be easier for the casual workers to shift from one dock to the next.

This can be accomplished, he urges, by a system of public employment exchanges along the water front. Through these exchanges the dock owners should be made to requisition their requirements for casual workers. Such a system of labor exchanges can make regular employment possible for the majority of workers by the simple device of giving preference to part of the available supply. The rest of the laborers, squeezed out in the process of "decasualization," can be taken care of through some well-timed public work. On a larger scale, labor exchanges conceived for industry as a whole can aid in the "dovetailing" of seasonal requirements between various trades. They can aid in relocating those displaced through industrial changes, help old men to find positions they are fitted for by getting firms to substitute them for young men, and can perform other useful functions which Beveridge lists. He also suggests elasticity of working hours, subsidized insurance, and various other measures.

3 *A Significant Element Overlooked*

Brilliant as Beveridge's analysis is, his remedial program falls far short of his penetrating insight. His study contains an important omission. He does not inquire whether there is a need for the excessive hiring and firing which

causes so many dislocations from jobs. He does not look into the process of operation inside the plant to question the efficiency or considerateness of management. In a number of places his language seems to suggest that he will soon take up this aspect. Where, however, he talks of "the methods of industry,"¹ he refers rather to the larger economic movements. When one's eye alights with relief on the term "business organization,"² it is to find that Beveridge is using it in another meaning—the dovetailing of labor requirements or the organization of the labor market, and that it does not refer to self-improvement in technique within a firm. Being intent on the problem of placement of those without jobs, he maintains that "The most important practical question with regard to an unemployed man is, not how he came to lose his last job, but how it comes that he cannot get a fresh job now."³

Beveridge's point of view toward business firms at that time was thus entirely extra-mural. He wanted employers to secure all their labor through a common source—this to be made compulsory by law in some cases. He placed much emphasis on the obligation to cooperate with other employers and with state agencies in adjusting the workers who are displaced to the opportunities in the labor market. *He did not indicate anywhere that many of the workers might not have been displaced at all if better methods of administration had been used.*

This partial blindness, for such it must be called, has pervaded most of the English literature on the subject that followed, and for a time affected the American point of view. Neither the majority nor the minority report of the famous Royal Poor Law Commission gave the matter of industrial efficiency more than passing attention. Although Mr. Barnes urged the possibility that employers might devise ways of providing more regular employment,⁴ no mention at all is made of this possibility in the separate conclusions and recommendations which the divided commission published.

¹ W. H. Beveridge, *Unemployment—A Problem of Industry* (London, 1910), p. 15.

² *Ibid.*, pp. 110, 192.

³ *Ibid.*, p. 115.

⁴ Royal Commission, *op. cit.*, vol. xxxvii, p. 410.

Even so astute a reformer as Sidney Webb, who testified before the commission, failed to see anything in this aspect of the problem.¹ Later, Webb used the word regularization in his introduction to a book on seasonal fluctuations in employment, stating that "there is no more 'inevitability' about them than about the rattling of a motor car,"² but on closer examination it is seen that by that term he meant long-time planning of public works, and other governmental remedies.

A review of the literature on unemployment shows that almost to this day the omission of this essential phase of a thoroughgoing remedial program has persisted in England. The backwardness of English writers in this respect is seen in a study on unemployment insurance published by an authority in 1923. In discussing the suggestion made in certain quarters that a financial incentive to the employer to regularize employment would be a desirable feature of unemployment insurance, the author pays his respects to the subject in a manner which indicates little understanding of the possibilities of industrial administration. The only effect he mentions of the financial penalty involved in incentive types of insurance is based on the make-work theory that "it will pay them (the employers) to retain their workmen and produce at the lowest prices, rather than restrict production and keep prices high."³

¹ The Minutes of Evidence (appendix vol. ix., *op. cit.*, p. 201) show that Mrs. Bosanquet asked Mr. Webb very pointedly why attention should not be given to the responsibility of employers for regularization of employment. She said: "Is it not possible to take the line that if employers want more labor in June than in January they must be prepared to strengthen their present staff and reorganize their work, rather than encourage them by maintaining for them . . . a reservoir from which they can withdraw them when they like?" Sidney Webb replied that it was impossible. After a rather insistent rejoinder by Mrs. Bosanquet, stressing the desirability of working along that line, Mr. Webb backed down by saying he agreed with her, provided it could be done; but in *The Prevention of Destitution*, by Sidney and Beatrice Webb, subsequently published, the chapters on unemployment never mention the approach through better business management, while at the same time possibilities infinitely more fanciful and less practical are proposed.

² *Seasonal Trades*, *op. cit.*, p. ix.

³ Joseph L. Cohen, *Insurance by Industry Examined* (London, 1923), p. 58.

An exception to the point of view of most English students of the subject is Mr. B. Seebohm Rowntree, an employer who has made significant progress in eliminating irregularity of employment in his own large factories. In the studies he made a decade or more ago there is practically no suggestion of the importance of regularization through the improvement of methods within individual firms,¹ but his more recent writings have pointed out the opportunities of reducing much of the existing irregularity through good management.²

II THE NEW AMERICAN EMPHASIS

There are good reasons why it has been American thinking, not English, which has begun to put the emphasis on the strengthening of each business within itself. England's trade is based largely on export, and the feeling that industrial conditions are influenced mainly by extraneous conditions has considerably deflected interest from the situation within industry itself. England does not have weather fluctuations as severe as they are in many parts of this country, so that seasonal variations are not as great. Certainly, England has been behind America in the management movement, and its spokesmen acknowledge their debt to individual American pioneers and to the example of American firms.³

Economic and political circumstances in England have allowed many problems to be tackled through the passage of relief measures which could not, for constitutional and other reasons, be secured in this country. The traditional insistence upon individual initiative by American statesmen and business men alike, which has blocked much-needed social legisla-

¹ B. Seebohm Rowntree and Bruno Lasker, *Unemployment: A Social Study* (London, 1911), and B. Seebohm Rowntree, *The Way to Industrial Peace and the Problem of Unemployment* (London, 1914).

² B. Seebohm Rowntree, *The Human Factor in Business* (New York, 1921), pp. 37-38, and his article on "Some Necessary Steps Toward a Solution of the Unemployment Problem," in the *Political Science Quarterly*, June, 1923, pp. 189-218. Ramsay Muir, *Liberalism and Industry* (New York, 1921), pp. 88-89, suggests regularization as an important activity for joint industrial councils.

³ Oliver Sheldon, *The Philosophy of Management* (New York, 1923), p. 45.

tion, has, in this instance, served a good purpose. For it has resulted in focusing attention on the need for eliminating unemployment, rather than accepting all of it as inevitable and paying for it through relief measures. The fact that much of the present opposition to relief measures is guided by the employers' self-interest is only of incidental importance, for liberal thinkers, as well, have come to realize that the American emphasis on regularization will lead to the most fundamental progress. When unemployment insurance does become general in American industry, it will be the result of a healthier development.

The American attitude was reflected earliest in some of the studies made by the Committee on Women's Work of the Russell Sage Foundation, as far back as 1912.¹ This committee, of which Prof. Henry R. Seager was chairman, included, among others, Prof. Samuel McCune Lindsay and Miss Mary Van Kleeck, who have long been prominent in the movement to reduce unemployment. Books published under these auspices do not hesitate to make it clear that the situation in the trades studied might have been different if some of the ingenuity the employers have shown in other directions had been applied to the problem of steadying employment for their workers. One of the investigators, for example, unsparingly remarks: "Laymen who talk about the 'marvelous organization of modern industries' need only inquire into the methods of steadying the seasons in almost any trade which employs a large number of women, to discover proof of a most lamentable lack of efficient organization."²

What the author has taken the liberty of calling the American attitude on the problem of unemployment may be said to have assumed a definite form at the First National Conference on Unemployment, held in New York City, February

¹ Mary Van Kleeck, *Women in the Bookbinding Trade* (New York, 1913), *Artificial Flower Makers* (New York, 1913), and *A Seasonal Industry* (Millinery) (New York, 1917). Louise C. Odencrantz, *Italian Women in Industry* (New York, 1919). The date of publication of some of these volumes is much later than the time that the studies were made or the results published in newspapers and magazines.

² Mary Van Kleeck, *Artificial Flower Makers*, *op. cit.*, p. 56.

27-28, 1914, when Professor Seager, chairman of the conference and then president of the American Association for Labor Legislation, struck the keynote of the beginning of the second day's session by saying:

I believe that, notwithstanding the fact that so many different aspects of the problem were touched upon in the addresses yesterday . . . as speaker followed speaker I felt that the whole matter stood out more and more clearly, and that what ought to be done in this country . . . became more and more obvious.

The aspect of the question most impressed upon my own thought was the necessity of regularizing employment. It is still true that nine out of ten employers employ and discharge their wage-earners with very little consideration for the welfare of the wage-earner.¹

As a result of the first Conference on Unemployment mentioned above, studies were initiated with the aim of arriving at business policies that reduce unemployment. One such report, a tentative one by the Industrial Relations Committee of the Boston Chamber of Commerce, appeared in *Current Affairs* of December 21, 1914, a publication of the Chamber, and is the best formulation, within small compass, of the principles of seasonal regularization of manufacture that exists.

The "Standard Recommendations for the Prevention and Relief of Unemployment," which have been issued from time to time during the past eight years by the American Association for Labor Legislation, have given conspicuous place to the possibilities of eliminating unemployment through sound management technique. This has been reflected in subsequent researches and reports. The Mayor's Committee in New York City, in its report of January, 1916, gave adequate space to this aspect of the problem.²

Since then the analysis of business methods that impede regularization has grown increasingly refined. One of the most important investigations within the past few years was that in 1921 by a committee of the Federated Engineering

¹ *American Labor Legislation Review*, May, 1914, p. 311.

² *Report of the Mayor's Committee on Unemployment* (New York, 1916), pp. 63-65.

Societies, on *Waste in Industry*—a report made mainly by industrial experts and business men. The personnel of the President's Unemployment Conference of 1921, still in nominal existence, and the approach to various problems by this group, shows the same tendency of seeking the remedies for unemployment in industrial methods. Its attack on cyclical unemployment has been with the point of view of control and mitigation of business cycles rather than of alleviation through relief of the unemployed.¹ Its interest in the preventive possibilities in seasonal unemployment has been particularly marked.

This attitude is not limited to the trades showing the least seasonal irregularity, but is seen in the study of those industries which, at one time, were regarded as being practically beyond improvement. The report of a subcommittee of the Unemployment Conference on seasonal operation in the construction industries, for which contractors, architects, and other men in the trade take responsibility, pays particular attention to indications that much of the evil is due to tradition and to a failure to make use of modern expedients.² The report of the United States Coal Commission, in 1923, available as yet only in mimeographed form, goes deeply into the obstacles to regular production.

Several national groups have aided in studying the factors that cause discontinuity of operation in various trades. Such a problem as whether or not popular opinion is correct that bituminous coal is inflammable and cannot be stored is determined by a committee of the Federated Engineering Societies through a nation-wide investigation, analyzing the kinds of coal that can be stored, the amount that would be needed to help industry operate more continuously, and other practical questions. And the latest effort—the present study published under the auspices of the American Management Association—is distinctly a move to aid industry to solve as much as possible of the problem of irregularity of employment by the application of sound management technique.

¹ President's Conference on Unemployment, *Business Cycles and Unemployment* (New York, 1923), 405 pp.

² See chap. xiii, *infra*.

III A COMPARISON OF METHODS IN A CONCRETE CASE

Compare, in a concrete instance, the application of what has been called "the engineering approach to the problem of continuous employment," with the remedies more widely relied upon in the past. The instance selected is the Hills Brothers Company, the largest packers and distributors of dates in the country, who produce the "Dromedary" brand.

In the accompanying graph (Fig. 4) the course of sales and

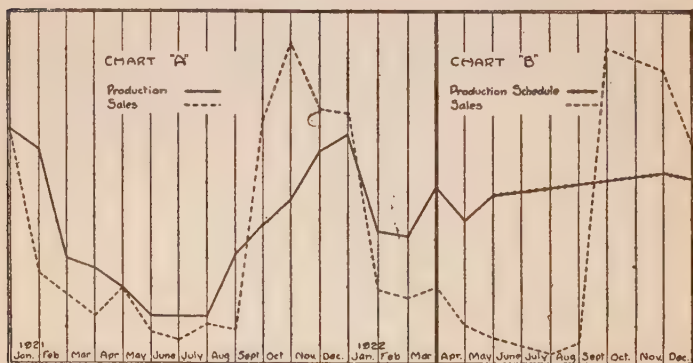


FIG. 4. COURSE OF PRODUCTION IN THE HILLS BROTHERS COMPANY BEFORE AND AFTER IMPROVEMENTS WERE INTRODUCED IN THE REFRIGERATION PROCESS AND IN METHODS OF PLANNING

production in this company during 1921 and the early part of 1922 is indicated. The dotted line in Chart A, representing the sales, shows that in the autumn of 1921 there was a pronounced seasonal peak in demand. This is customary in the firm's business. Incidentally, 1921 was not a year of depression for this company; in fact, the demand for dates was greater than the supply. Owing to the methods then in vogue, however, the huge volume of business did not bring regular employment to the workers. The curve of production, *viz.*, packing, shows a sharp peak. By the deep, wide hollow which precedes the peak one can see the extreme range of fluctuation of employment. It meant hundreds of

persons laid off and left without incomes, an impaired morale in the plant, and many industrial wastes.

Now what would have been the solution for this situation in the light of the traditionary program of remedies?

Public employment exchanges on a comprehensive national scale have been advocated by every student of the unemployment problem and in every report. If such had been available in Brooklyn (New York), where the firm is located, the employees reporting there might have found the slack season general at that time, and might, therefore, have had no jobs suggested to them. Perhaps they would have been offered work in a needle factory in New York, or in a tire plant in Akron, Ohio.

There is something stimulating in the thought of a complete pressure-gauge of labor requirements, which will dovetail workers between employments having different seasons and will also "reserve certain places in industry for the older men and women," "direct labor to new occupations when changes of industrial structure result in displacement from chosen occupations," etc. The realities of the situation, however, must relegate this remedy to a much less important place, as will later be shown. Fluctuations in industry are left untouched. So many extravagant hopes have been raised in connection with labor exchanges, and so many practical difficulties tend to be forgotten in the absorption with theoretical calculations as to what a system of public employment exchanges might be able to do, that warning is needed concerning it on the ground of extreme overemphasis.

A second remedy suggested universally is the long-range planning of public works. If that policy had been followed, such work would have been carried on in 1921, because it was a year of industrial depression. Thus some form of public work which Brooklyn had long ago planned chiefly for a year of depression, would have suffered the competition of a group of workers whose trade was not cyclically depressed at all, but which was merely having its regular seasonal slack.

In some of the older studies, the provision of training for the unemployed is given much attention because among the personal qualifications of the unemployed, one characteristic—the apparent lack of the kind of skill that would fit the

applicant for some specialized work—attracted particular attention. This opened up the whole question of the vocational training and guidance of young people. Investigations concerning this subject have revealed a startling amount of misdirection of boys into “blind alley” employment. The extent to which the feelings of the Royal Poor Law Commission were stirred can be seen in the statement of the minority that the discovery of the facts on this subject were “perhaps the gravest of all the grave facts which this commission has laid bare.”¹

If this were the basis of an educational policy then in vogue, practically all that could have been done in Brooklyn for the workers laid off would have been the offer of training in some other occupation, perhaps one itself irregular. That the direction of youths into proper channels, and the provision for comprehensive industrial training, are important, is admitted by all. But it is becoming equally well known that the influence of training in the reduction of unemployment as a whole is limited. The causes of industrial fluctuation will not be affected by the skill of workers, for lack of training is only an incidental reason why particular individuals are unemployed. Some of the most efficient firms in the country really prefer untrained employees because the methods of work taught by the company are so different from those of other concerns.

Finally, in many quarters unemployment insurance has been proposed as an aid to those laid off. Had some public plan been in existence, it might have supported, on a meager basis, those who could not get located. But relief insurance, though desirable, is at best a palliative. The wasteful fluctuations in employment remain exactly as before. The amount of relief under public plans is hardly compensation for the tribulations of an uncertain existence. Only the new types of insurance, providing also incentives to regularization, can be considered a fundamental remedy, but this feature in the older studies was largely undeveloped. Thus reconsideration of the remedies relied upon in the past shows that public effort would have provided no stimulus to the Hills Brothers Company to heal itself.

¹ Royal Commission on Poor Laws, *op. cit.*, vol. xxxvii, p. 1167.

Fortunately, within this firm there was stimulus enough in its ideal of sound business progress. Its president, Mr. L. R. Eastman, and other officers have not been unmindful of the possibilities of regularization. To their surprise, this proved not nearly so hard as they at first thought it might be. They had recognized the seriousness of the problem and for nearly ten years it had been considered from various angles. A good deal of effort had been exerted in the direction of stimulating a more even demand. Selling and advertising had been adjusted to this purpose. Other expedients, including the analysis of various production methods, had been studied.

None of these efforts had proved completely effective and it was not until 1921 that the real solution was discovered—a solution which had often suggested itself, but which it took time and experimentation to develop. Mr. Ernest G. Draper, comptroller of the company, wrote to the author:

The discovery of our refrigeration process was quite simple. When we asked ourselves the question how best to regularize our package date business, the first answer that came to our mind was the one which we ultimately adopted. Practically all that we had to do was to determine by chemical test the temperature in which dates kept the best and longest. Having found the answer to that question, the rest of the problem was merely to so arrange our working schedules as to conform to the newer and steadier methods of packing after, of course, we had erected the cold-storage plant. . . . The results in ease and better quality of manufacture are already apparent. . . . A feasible and comparatively simple answer to the problem was found when we determined to give the matter some thought. It had never occurred to us to do so in the past, and the chances are that if we had not done so we would to-day be working along the old wasteful and inefficient lines.

The progress achieved can be seen in Chart B of Fig. 4. As a result of a policy inaugurated in March, 1922, the company now manufactures practically an even amount each month, basing the production schedule on the anticipated sales of the whole year. The production curve will, therefore, be either steady or changing gradually, and the peaks and hollows in employment will be practically eliminated.

The author does not claim that the problem will prove equally simple in other industries. The aim of subsequent chapters is to describe and analyze the technique available, to consider how far it will aid in the solution of the problem, and to indicate, as well, its limitations. When efficient management has done all that should be expected of it, the disease of unemployment will be so moderated that a more nearly complete cure through the aid of the other and less important remedies discussed should not be as difficult.

IV THE CAUSES OF UNEMPLOYMENT: A REEXAMINATION

The emphasis on certain management factors involved in irregularity of employment calls for a reexamination of the causes of unemployment, as usually listed in treatises on the subject. Such a reconsideration is of utmost importance since a more precise analysis will make it possible to put pressure on those factors of discontinuous operation in which most progress can be made.

In the discussions of the unemployment problem in the past there has been an excess of generalities concerning the causes of unemployment and the avoidance of definite fixing of responsibility for remedying the situation. The inadequacy of this type of analysis can be made obvious by one or two examples. The Chicago Commission on Unemployment made an investigation of causes of unemployment. Its report presents with due gravity the replies of thirty-two employers, tabulated under the column heading "Reasons for Fluctuations in Number of Employees."¹ Twelve employers answer, "Seasons"; eight say, "Business fluctuations"; six reply, "Lack of orders"; and the remaining few mention various other reasons.

The New York Employers' Liability Commission sent out questionnaires to employers and then made out the following compilation of "causes."²

The root of the failure to isolate more specific conditions of industry which cause unemployment is the fact that care-

¹ Mayor's Commission on Unemployment, *Report* (Chicago, 1914), p. 22.

² New York Commission on Employers' Liability, *op. cit.*, p. 157.

Number of employers replying	Cause cited
245	Increase or decrease of orders
168	Seasons
69	Busy or dull times
34	New work
33	Inventory and repairs
30	The weather
14	Lack of material
9	Lack of help
7	Overproduction
7	Improved machinery
26	Other causes

CAUSES OF FLUCTUATION IN THE NUMBER OF WAGE-EARNERS
EMPLOYED

ful consideration has not been given to what may properly be called a "cause." There are usually a large number of factors which may be considered causes. The difficulty may best be illustrated in the field of accident prevention. An employer maintains a large factory with machinery that is not properly guarded. One of the workers slips on an oily floor near a machine and meets with a minor accident resulting in a slight gash on the arm. No nurse or doctor is employed by the firm, so the employee binds his own wound. In the absence of the proper care, the inconsequential injury results in infection and eventually in the loss of the arm. In this case, what may be said to be the cause of the man's misfortune?

Was it "infection"? Was it the unguarded character of the machines? The oily floor? The absence of a safety campaign to make employees more careful? If the employee had at once been given medical treatment in the plant or sent to a doctor, would the accident have been serious? And if, even during the latter stages of the infection, proper attention by specialists had been given at the expense of the firm, could the arm have been saved? A hundred elements exist in this situation, any one of which could be considered an essential link in the worker's misfortune. Under these circumstances, which factor shall be selected as the "cause"?

The logician's definition of a cause is the antecedent, or

the concurrence of antecedents, upon which a phenomenon is invariably and *unconditionally* consequent. But so precise a cause or set of causes can hardly be isolated in the study of social phenomena. Selection among the various factors involved becomes essential, and the degree of discrimination shown in this selection determines the usefulness of the "causes" cited. Upon which principle shall the selection be made?

Where a remedial program is the objective, it is necessary to isolate those factors which will help most in determining where to put the pressure. In the accident case just described, most may agree that while a many-sided attack on the problem would be desirable, the main responsibility for allowing such an accident to occur and to become so serious is the employer's. And if it were generally understood that the employer's defective safety provisions, including inadequate attention to accident prevention and medical organization, were the cause most responsible for the accident, the attempts to remedy the cause would certainly be better directed.

Such "causes" as "seasonal demand," "weather," and the many similar ones have often tended to obscure rather than aid the analysis of the causes of unemployment. Seasonal *demand* of an extreme sort exists in the camera trade, yet one would not excuse extreme seasonal *production* of such a staple commodity for that reason. What industry would at first sight seem to have as good an excuse for a seasonal fluctuations on the grounds of "weather" as that engaged in the manufacture of electric fans? Years ago the industry was very seasonal. Now, however, the General Electric Company says that production of fans is entirely regular, while a plant of the Westinghouse Electric and Manufacturing Company informs the writer that the firm manufactures fan motors twelve months out of the year at a steady rate of production, warehousing the motors during the winter. Shall it be stated, therefore, merely that "weather," "seasonal demand," or something equally general was the cause of the seasonal employment in the fan industry formerly, or shall the difficulty also be ascribed to particular phases of undeveloped management technique?

When tradition is not allowed to fetter conscious technique, much progress is possible. The demand for candy shows a considerable falling off in summer. Stephen F. Whitman & Son, Inc., of Philadelphia, a progressive candy firm, analyzed the reason and found that one of the causes for this depression in demand during summer months was the failure of the manufacturers to promote sales. By advertising, featuring candy as a factor in summer sports and social gatherings, and by placing the packages on sale convenient to summer resorts, it has built up a pronounced summer business that in 1922 caused a peak of employment in months when other firms were at their lowest ebb. The author wrote to this firm to inquire whether production of candy in advance would not have been feasible even if the slack in demand had not been overcome. Occasional experience with stale candy did not make him very hopeful. But the reply from this firm was, "You are quite right that cocoa and chocolate can be produced in warm weather and kept in cold storage for later sale. It is customary to manufacture very large quantities of chocolate coatings ready for quick manufacture in fall and winter." Thus it is seen that the firm which does not use refrigeration in order to maintain more regular production cannot put the whole blame upon the weather, the habits of the public, or the difficulties of manufacture.

Indeed, some of the causes selected are rather apologies or descriptions than analyses. When brick-making was confined to those periods of the year when sun-drying could be depended upon, the weather alone was blamed for seasonal production. But since artificial drying and other measures to overcome weather conditions now proven successful had not been fully tried out, emphasis could not be put on the weather as the exclusive cause.

"Business depression" is an explanation often given for cyclical unemployment. But "business depression" stated by an individual employer should not be used as an excuse for personal misjudgment. If scientifically studied, business depressions may not, in particular industries or businesses, at least, be the mysterious and ruinous phenomena that they

seem. Furthermore, faulty business practices of the very firms that complain of depression may account, in part, for the embarrassment they experience. They may have failed to heed clear warnings concerning the course of events, maintained undue optimism, engaged in unwarranted expansion of plant and equipment, over-committed themselves in contracts, gambled in raw materials, worked on faulty sales analyses or engaged in other practices, explaining why their business became prostrated in the time of depression.

Therefore, instead of using only the general term "business depression," one should also specify these faulty business policies wherever they are contributory causes.

While, as has been stated, attention in the past has been attracted away from the specific responsibilities of industry to more illusive conditions, from time to time complaints against methods of management have found their way into the literature of unemployment; and these criticisms are now becoming increasingly prominent. It has become apparent that behind the confusion of fluctuating labor requirements there is a greater chaos of inefficient management of sales, finance, production, and personnel. The specific defects complained of will be indicated in their place in the chapters that follow. All that this chapter has attempted is to turn attention from the general conditions usually styled the causes of unemployment to the specific conditions of administration associated with irregularity of employment existing in any given situation.

If one reviews the various conditions that make for irregularity of employment, it will be seen that these are almost without number. The importance of each varies according to the country, the trade, the locality and the alertness of the individual firm, and they occur in an unlimited number of combinations. Each cause is itself a summation of more minute or trivial causes. They are found in social customs, in industrial methods, in nature, in the interdependence of social groups, in the limitations of science and in every phase of life. Yet among these many causes one seems to stand out more conspicuously than ever in the past. To this we now turn.

V INDIFFERENCE OF MANAGEMENT: THE ONE COMMON CAUSE

If one seeks among the elements in any particular plant that disturb continuous employment for a factor present in all, there is one common condition that approaches nearest to the technical definition of a cause. This almost invariable antecedent is the astonishing indifference of industry in the past to the human problem involved in the insecurity of irregular employment.

Almost every investigation concerning unemployment has pointed to this defect in industrial administration. A prolonged study of the conditions on the water front has convinced an observer that "Employers have never made more than sporadic or inadequate attempts to remedy those evils for which they are responsible. In most cases they have failed to recognize them."¹ The conclusion in an investigation of the bookbinding trade is that there has been no systematic effort either to prevent irregularity of employment or to lessen its evils,² and of a study of artificial-flower making that no method of lengthening the seasons of employment has either been attempted or advocated.³ A report on the building industry shows that "Most contractors . . . pay absolutely no regard to the worker as an individual. Men are taken on as required, and discharged at a minute's notice."⁴

If one looks behind the numerous conditions that result in irregular employment, therefore, the outstanding circumstance is the spirit of management. The outstanding fact about all the firms which have regularized work is that continuity of employment is their guiding principle in conducting business. Some of the elements of the technique of these firms which have helped them to achieve stability are described in other sections. But back of these is the fundamental policy of continuous operation. In spite of the essential importance of method, the technique used is wholly

¹ Charles B. Barnes, *The Longshoremen* (New York, 1915), p. 175.

² Mary Van Kleeck, *op. cit.*, p. 101.

³ Mary Van Kleeck, *op. cit.*, p. 56.

⁴ *Waste in Industry*, *op. cit.*, pp. 67-68.

secondary to this larger aim. The attitude of a few of the firms whose records for continuous employment are conspicuous should prove of interest, and are cited here.

The Dennison Manufacturing Company, of Framingham, Mass., is exceptionally alert to the desirability of continuous work. Prompted by this purpose, it has engaged in prolonged research, made numerous experiments, and may be said to have tried almost every expedient known for stabilizing its business. During the year 1921 its payroll was therefore only about 4 per cent less than during the boom period of 1920, and practically no lay-offs were necessary.

The International Shoe Company, of St. Louis, Mo., also has a remarkable record. The firm owns thirty-eight factories and seven tanneries scattered over the country. During the year 1921, when other shoe firms were embarrassed, this company increased its sales considerably over the year 1920. The chairman of the board, Mr. Jackson Johnson, recently wrote the author :

Our ideas of business have been to develop an organization that could keep continuously at work by keeping our factories running steadily at all times. For more than twenty years we have succeeded in doing so. I do not call to mind a single factory that has been shut down for a period of thirty days during all that time for want of business.

The Procter & Gamble Company has recently added to its fame by guaranteeing forty-eight weeks of employment to a substantial proportion of its employees. The author feels certain, after personal conferences with its president, Col. William Cooper Procter, and with other important executives, that it is a fundamental purpose and aspiration of the firm to make work regular for its employees, and thus to remove their fear of the future.

In the men's clothing industry—a trade whose irregularity is notorious—two examples may be cited among many. These are the Joseph & Feiss Company, of Cleveland, Ohio, and the Hickey-Freeman Company, of Rochester, New York, each with over 1,000 employees on their payrolls. Although they are both in the same trade, they are dissimilar in many important respects—in grade of goods made, in trade to which these are sold, in location, and in other factors.

The Joseph & Feiss Company has based its entire business on the theory that an industrial organization can succeed and serve efficiently only when planned on continuous production. The firm has applied the policy even when it has meant a sacrifice of profits or entailed a financial loss for a time. The firm's record for practically full-time work throughout the depression, including such exceptionally serious times as the end of 1920 and the early part of 1921—when surely it found continuity costly—well attests the sincerity of its interest, and makes the perfection of its technique a secondary explanation. It has not been able to maintain its perfect record throughout, but conditions in the industry in the past few years have been extremely difficult to contend with, as is later shown.

The Hickey-Freeman Company is motivated by the same principle of continuous employment. The late Mr. Freeman, in discussing the problems of the industry with the author, and the methods used to regularize employment, made it clear that the desire of the firm to avoid laying off even a single man for lack of work was the one important thing.

Further proof that purpose and technique are the vital things in regularization is seen in the fact that when an important executive who has achieved continuous operation in one plant changes to another, he is able to secure the same result in the new firm if the owners support his efforts. In 1914, Mr. George D. Babcock, then production manager of the H. H. Franklin Manufacturing Company, Syracuse, N. Y., delivered a paper which is a notable example of how a sincere and scientific approach to the problem of eliminating peak loads of labor can transform discontinuity into regularity in a given industry. The demand for automobiles, it should be noted, is affected by the seasons and the design subject to frequent changes. Yet after careful application of various methods, a manufacturing schedule was adopted that called for practically no peak load of effort and consequently little change in the number of employees.¹

¹ George D. Babcock, "Results of Applied Scientific Management," in *Proceedings of the Sixteenth Annual Convention*, National Metal Trades Association, 1914, pp. 98-158.

Subsequently, Mr. Babcock was an officer in the army during the World War, and in 1919 became the manufacturing executive of the Holt Manufacturing Company, of Peoria, Ill., makers of tractors, combined harvesters, and plows. The manufacture of these products with their many hundreds of parts is very complex. Remarkable success has, nevertheless, been achieved in spreading the burden of work over the year. While through proper methods of planning there were fairly uniform conditions at the plant for three years, the culmination of the technique came in 1922. The following extracts from a letter written on September 13, 1922, are presented so that the description may be in Mr. Babcock's own words:

During this year we have been working on a schedule which was to begin production on a daily quota on March 18th. During the first four weeks of this schedule it was maintained exactly by the week, that is 24 completed units per week. Since that time to date there has not been a single working day in which the exact quota for the day has not been accomplished, and we see no reason to anticipate any break-down on the daily quota until the completion of the particular schedule on November 30th.

Our employment curve of producing personnel is practically a straight line from March to date. This has been accomplished solely by control through all branches of the work. . . . by maintaining the proper quota of parts at the correct time intervals. This example of control is, as far as I have been able to find, a record in industrial operations. It requires this kind of practice to be successful in combating unemployment.

This record has been eclipsed by the continued success of the production schedule. On October 15, 1924, the planned daily schedule had been maintained for 734 consecutive working days, with nothing in sight to prevent its continuance on the same perfect basis!¹

The conclusion is evident: One of the chief causes of irregular employment in the past has been the *indifference of management*. Before much will be done in reducing such

¹ *Management and Administration*, November, 1924, p. 502. The whole series of articles by Mr. Babcock, beginning in the June issue, describing the methods used, is well worth reading.

irregularity, continuity of employment must become one of the major purposes of industry. This insistence is not different from insistence on adequate provisions for safety. The principle is, moreover, not inconsistent with profit-making. It will probably add to profits. Some of the firms which have achieved substantial regularity of work stand out among the most prosperous in the country. There are exceptions—firms which have made mistakes in buying materials or encountered other types of difficulties—but they have not suffered because of their regularity of operation. The policy of offering steady employment may, of course, sometimes draw upon reserve profits, or even cause a temporary loss. But there is little doubt that the maintenance of continuous employment may be thoroughly harmonized in the long run with the other major purposes of production for profit.

VI MANAGEMENT'S RESPONSIBILITY AND OPPORTUNITY

Experts in problems of business administration have not hesitated to assume, for management, the burden of regularizing work. Mr. William R. Basset, one of the country's leading industrial engineers, contends that a seasonal business is invariably a poorly run business, and states: "I have yet to see the business that cannot either be continued through the whole year or be organized to take on another seasonal product, so that the full force can be used through the whole year."¹ Herbert Hoover, in 1920, the chairman of a conference on the stabilization of the bituminous coal industry, and president of the American Institute of Mining Engineers, opened a meeting with the frank statement that, "This industry, considered as a whole, is one of the worst functioning industries in the United States," and later said, "The problem of whether the industry can, by any device, be cured or even partially cured of its intermittency, is solely an engineering problem."²

Responsibility for unemployment has been assumed for management by progressive employers. Mr. Sam A. Lew-

¹ William R. Basset, *When the Workmen Help You Manage* (New York, 1919), p. 87.

² *Mining and Metallurgy*, March, 1920, p. 1.

isohn, a banker and industrialist, and president of the American Management Association, an employers' organization, has stated in a memorandum report to the President's Unemployment Conference:

As the direction of the affairs of the business world lies mainly in the hands of employing management and of financiers, it is obvious that the responsibility for taking the initiative in adopting measures to minimize unemployment is primarily theirs. This does not mean that unemployment is the *fault* of these groups or that they are responsible for bringing about the conditions antecedent to unemployment. But what is suggested is that these groups are the only ones that can be of any large influence in mitigating these conditions.

A statement distributed by the Dennison Manufacturing Company says, in part:

Although the moral responsibility for unemployment cannot invariably be laid at the door of the employer, it is the employer who can both reduce the amount of unemployment among his employees by proper management and can mitigate the hardship of such unemployment as cannot be avoided by making reservations for contingencies beyond his control.

It is in this sense that the term "responsibility" must be understood. If the employer consciously creates a condition causing an accident, one may say squarely that he is at fault. But in many instances such accidents occur merely because some mode of action known by the expert or the progressive employer to be effective in preventing accidents has not been adopted. Responsibility for certain conditions of industry put upon the employer implies—what may not be accepted by some employers—that in return for the freedom and protection afforded to those who assume leadership in industry, there are certain reciprocal obligations to society.

The responsibility for a program of regularizing employment in any plant lies especially on the head of the firm. The conditions that must be mastered in order to achieve a substantial regularity of employment make the attitude of the highest management toward this matter of supreme

importance. A firm will solve the problem of regularization only as it solves each of the minute and specific causes discoverable in marketing policy, in production technique, in management of personnel, in trade action, in stubborn social customs and other factors. This may involve an endeavor lasting over many years. Unless the chief executive is guided by the consistent purpose of reducing fluctuations in operation and employment to the minimum, progress will be hampered by too many difficulties. Success requires not merely the assent of the directing heads of the firm, but their most active leadership.¹

¹ It is interesting to note that in Germany there seems to be a tradition of making employment as secure as possible, even at some sacrifice. Two citations will suffice to show the spirit of German industry in this regard. August Thyssen, "the Rockefeller of the Ruhr," is reported in the *New York Times* of February 11, 1923, to say:

"I have always considered it my duty to keep the factories running and to provide a living for the workmen and their families even in times when prices and rents brought me no profits. Only those who have really passed through the times of our economic hardships can realize the immense burdens which I carried on my shoulders—the tremendous anxieties which often depressed me for years at a time."

To this the *Times* adds: "Thyssen thus pictures himself as a weary Titan summoned by Providence to sustain 50,000 homes."

In Mr. William R. Basset's *When the Workmen Help You Manage* (New York, 1919, pp. 157-160) the following observations are made, bearing out the same point:

"Germany seems to have been the first country to get at the root of the trouble. There it has so long been a maxim that capital must provide twelve months' work each year that one no longer thinks of discussing the question—it is a settled fact. German factories do not have seasons. In the Krupp plant, for instance, between 1870 and 1918, the force was never reduced and the works were never shut down.

"And, although munition products formerly made up a steady all-the-year business for Krupp's, they absorbed only 5 per cent of the weight of the total output, and do not at all account for the fact that the rolling mills, the forge shop, and the many other departments dealing with peace work, kept their full output, month in and month out. Our own steel works do not do that.

"And the apparently seasonal occupations, such as the woollens, the cottons, and the silks, likewise, in Germany, have managed to preserve their full year of work, either by stocking in dull times or by sending their products into distant foreign markets where the seasons are reversed. German production costs were extremely low, because the

The chapters which follow first trace the possibilities of regularization through improvements in the management of distribution, production, and personnel within the individual firm or industry. When these vital aspects have been treated as fully as the subject deserves, public employment exchanges, unemployment insurance, and the other supplementary measures needed for a comprehensive attack on unemployment are discussed.

idle plant charges did not have to be borne by the working hours, and neither did men have to be paid, while working, for some time when they would not be working. . . .

"The German employer does not change the size of his force to suit the seasons; and, since he does not discharge men, they rarely leave of their own accord. Consequently, German factories, in normal times, have almost no labor turnover at all, except that arising from illness and death. The majority of German concerns consider ten years a low average for a worker's length of service. If Germany had a high rate of labor turnover, the result would not be so serious as in America because of the great number of skilled workers that is always at command. But, considering the enormous waste of money in American turnover, is it any wonder that Germany, without as highly developed methods or machinery, can undersell us?"

PART II
INDIVIDUAL AND INDUSTRIAL
REMEDIES

CHAPTER IV

A TECHNIQUE OF REGULARIZATION

I INTRODUCTION TO PART TWO

THE main emphasis in this study is upon the prevention of irregularity of employment. For this reason a considerable part of the discussion is necessarily concerned with the practices of industrial administration which give promise of reducing this irregularity to the minimum. Most industrial administrators who have thought about the question of regularizing employment in their own firms recognize that the lack of knowledge of experiments in this direction is a serious hindrance to further experiment.

The discerning economists and students, likewise, are beginning to examine the possibilities of eliminating irregularity of employment at its source, and are searching particularly for information as to the practicability of regularization. They do not subscribe to the notion that irregularity of employment is merely the result of capitalistic ownership of industry.

The aim here has consequently been to strike a mean between a mere compilation of methods used in various plants to regularize employment and a theoretical discussion of possibilities. Therefore, while the principles of business management applicable in the regularization of employment are discussed at length, illustrations from the experience, successful or otherwise, of one or more American firms are in almost every instance given, so that the effectiveness of the mode of action suggested may be appraised. Most of the information was obtained by actual investigation on the spot by the author or by correspondence with the responsible heads of various firms.

In discussing the principles involved, the author has at

times taken up what may appear to be unimportant details. But this is done because it is in a setting of these detailed and practical difficulties that the technique must be considered. Only rarely can the end be secured by the application of some single, general remedy or principle. The achievement of regularization represents the crowning synthesis of a wide variety of methods, applied in detail to numerous phases of the particular business and differently in different plants. Each reform, no matter how small, chips off its bit of irregularity, and thus makes way for the final success. The details of management are, therefore, the details of regularization of employment.

II WHY DISTRIBUTION IS TREATED FIRST

First place in this discussion is given to the subject of distribution *because every other method of steadying work or of providing for the worker when he is unemployed depends chiefly on the degree of control achieved over demand.* When the individual manufacturer, alone or in cooperation with others, has acquired some influence over the kinds of goods wanted, the time when they are ordered, the amount desired, and other elements involved, the foundations for marked improvement in the steadying of industrial operations have been laid. Give any firm assurance of distribution of a certain volume of goods, and it should have little difficulty in regularizing employment; the technique of production planning has already advanced to the point that makes exact scheduling possible. But subject the most scientific management to an uncontrolled demand, with unpredictable variations in quantities and styles, and its technique is likely to be impaired in a little time and perhaps disintegrated.

Good administration implies reasonable control over distribution. Control distribution? There are many who will claim that there is practically no way to do that. They will reason that, broadly speaking, the problems of a business may be divided into two types—those resulting from the impact of forces outside the firm and those having to do mainly with the type of organization and the degree of

technique within the firm itself. A depression in export or a change for the worse in general business conditions will be cited as a difficulty of the first kind, and as entirely independent of the methods of business used by a firm, while such a thing as continual failure to anticipate machine breakdown will be given as an instance of the second kind, more dependent on individual management.

This broad division has plausibility, and, if properly applied, it is true. In any particular instance, however, difficulties of the first type are often hard to distinguish from those of the second, or may not be separated from them. For modern administration has opened up a new vision concerning the opportunities at hand for individual firms to anticipate and control outside circumstances which are likely to disturb them. And this is especially true on the side of distribution of output, as succeeding chapters will show.

The realization that the sales end of a business may, under proper analysis and treatment, be subject to prediction and perhaps control is of the utmost importance in the problem of providing security of employment. A manufacturer who has regularized employment has stated: "I can say that the principal part of the work of smoothing out that curve of production has been a selling job."¹ Most manufacturers do not seem to have realized this, or have not believed much control possible. This lack of confidence has of itself retarded progress in distribution technique.

The sales manager of one of the progressive firms in the country states:

For six years the firm of which I am sales manager has been developing scientific management in its production end. And all of a sudden, now that we are stepping out of a seller's market into a buyer's market, we find the sales department up against a serious problem. . . . Our factories are suffering because the firm has spent all of its energy getting the producing end to the finest scientific details and has done nothing to have the sales department function in the same scientific manner. The result is that the scientific methods adopted by the factory are actually handicapped and retarded because the sales depart-

¹ Henry S. Dennison, in the *Bulletin of the Taylor Society*, October, 1920, p. 214.

ment is really a wild bunch of mustang ponies, uncontrolled, and with no idea whatsoever of science in selling.¹

That the neglect has been quite general is testified to by various students. One investigator was told time and again by textile manufacturers of Philadelphia, "We are not sellers, we are manufacturers. That's enough for one concern."

III DISTRIBUTION TECHNIQUE IS FUNDAMENTAL

The term, distribution technique, requires some explanation. To the reader unfamiliar with modern principles of distribution, the term indicates selling, and "selling" suggests vigorous and successful salesmanship in its ordinary sense. Such a restricted understanding may bring with it a certain prejudice because of the intensely competitive and individualistic character of salesmanship, implying that the success of one firm merely means the downfall of another. A restricted view of the sales problem is not, however, due to the limited character of the distributive function if rightly understood. As will presently appear, the control of demand in the interest of regular production and employment involves a new and hitherto neglected technique different from that currently conceived as making sales.

To begin with, this technique would lose little of its importance if society eliminated most of the competitive phases of industry. This is proved by the fact that where an industry has attained a monopoly, the absence of competition may not eliminate the glaring inefficiencies in distribution which have produced fluctuations in employment in firms under competitive conditions. The experience of a well-known firm which dominates its industry—in fact is practically the whole industry—illustrates the point.

Its curve of employment is shown in Fig. 5. The upper line of the chart represents the workers employed on a product in which, it is said, the firm makes over 90 per cent of the total production of the world. In the product represented by the employment curve in the lower line, the esti-

¹ Charles B. Crockett, in the *Bulletin of the Taylor Society*, October, 1920, p. 212.

mates vary from 65 per cent to 80 per cent of the output of the country. The products made are almost entirely manufactured for stock and are not subject to style variations. Among the conditions favorable to regularization is the fact that all the firm's American factories are located within the radius of a small city, so that intertransfer of employees

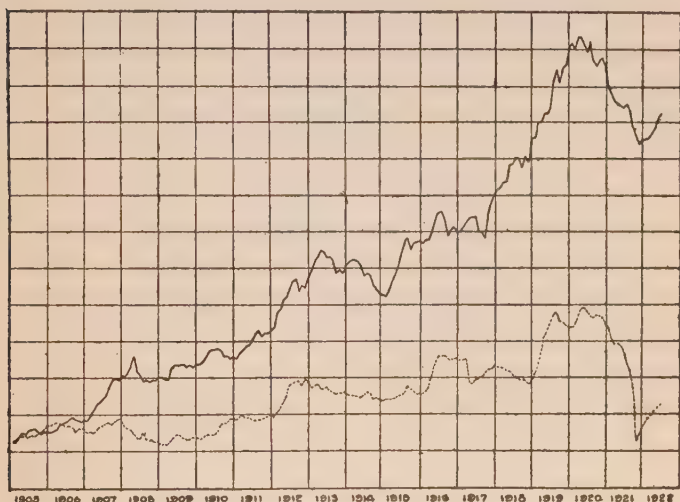


FIG. 5. FLUCTUATIONS OF EMPLOYMENT IN A NATIONAL INDUSTRY, 1905-1922

The two lines on the chart represent the variations in the number on the payroll in the two large divisions of a firm employing thousands of employees. In spite of the fact that this firm has maintained a virtual monopoly throughout the period and at the same time expanded its business enormously, it has not avoided severe fluctuations in employment.

would be feasible from the point of view of distance. Moreover, the long-time trend of the business has been one of enormous expansion of demand for the products. It is seen, therefore, that the conditions here were exceptionally conducive to the elimination or anticipation of serious employment fluctuations. Nevertheless, as the two curves show, the employment has been decidedly irregular. Why?

The cause is found largely in unscientific distribution

methods. A conspicuous example was the placing of excessive orders by uncontrolled foreign departments so that, in 1920, stocks on hand were far in excess of easily ascertainable requirements. A much larger proportion of the force was therefore laid off in the depression than would have been necessary if more exact methods had been used. Executives of the firm admit that they had not given sufficient attention to the control and planning features of distribution. To avoid such situations in the future, important changes in method were inaugurated in 1920, for the first time in the firm's history. This experience only adds to the proof that virtual monopoly without the proper technique will not achieve regularization.¹

Another illustration will serve to show the fundamental nature of other types of distribution technique. The Ford Motor Company has been more or less secure in the quantity demand for its products, but has been troubled by the seasonal peak of purchasing. The demand for cars used to come in particularly sharp peaks in early spring and in summer, and interfered with steady production. With a volume of production of hundreds of thousands of cars, it would have been impossible to manufacture ahead for stock in such quantities, to find place to store them, or to ship them all in season. The cost of a car would have been much higher if the winter period had not been used for production.

The idea then suggested itself to the company that the retailer should be induced to purchase out of season. But he, in turn, could not well afford to stock up with cars if the consumer would not buy them except in season. What was

¹ The group of economists responsible for the recent English report on *Is Unemployment Inevitable?*, cited in Chapter I, make this point emphatically. They state, "The initial fact of misjudgment in the world of supply and demand would not necessarily be done away with by abolishing the system of private enterprise. . . . There is no reason to suppose that government officials would forecast requirements more accurately. . . . Indeed, the history of attempts made by various governments from time to time to modify the fluctuation of prices by controlling supplies hardly encourages experiment. Such attempts have usually meant that output has been maintained at a time when the only wise course was to curtail it, and ultimately have involved great financial losses" (p. 40).

needed, therefore, was a campaign to prove the all-the-year-round value of a car rather than its use in a limited season, and other measures for changing the nature of the demand; and that is what was done.

Mr. Ford claims that his firm was the first to meet this problem in the automobile business. Those who think of the Ford Motor Company as primarily a factory organization will be surprised at the emphasis he puts on merchandising. He states:

Years ago we began the campaign of education to demonstrate that a Ford was not a summer luxury but a year-round necessity. Coupled with that came the education of the dealer into the knowledge that even if he could not sell so many cars in winter as in summer it would pay him to stock in winter for the summer and thus be able to make instant delivery. Both plans have worked out; in most parts of the country cars are used almost as much in winter as in summer. . . . Hence the winter sales are constantly growing larger and the seasonal demand is in part lifted from the dealer. And he finds it profitable to buy ahead in anticipation of needs. Thus we have no seasons in the plant; the production, up until the last couple of years, has been continuous excepting for the annual shut-downs for inventory.¹

Other automobile firms have likewise put pressure on all-year sales and have made the burden of seasonal demand of less influence in their production schedules.

Because the examples cited are from the annals of large-scale business, there is danger that it may be thought that the methods to be discussed can be applied successfully only by such large organizations. If that were the case, the principles to be discussed would be of much more limited value than they really are. The technique of distribution and of regularization is of importance because it is applicable to small businesses and large, and to various types of industries. The effectiveness of any particular expedient will vary according to the special circumstances in different firms. This means that for any important results good judgment must be used in this, as in all things, by the executives in

¹ Henry Ford, *My Life and Work* (New York, 1922), p. 166.

adapting the principles suggested to their special conditions. That, taken as a whole, the main principles considered can be adapted with reasonable success in any business, is the limit of the author's contention.

IV DISTRIBUTION POLICIES OF AID IN REGULARIZATION

To indicate some of the elements of distribution technique which may prove of aid in eliminating uneven production in the factory, a short topical summary is presented showing some of the methods discussed in the next few chapters.

What is particularly needed today in most organizations is that the activities of distribution should be strongly motivated by the desire to provide continuous production. The lack of such a motive in the sales end of business is much more general than it is in the production end or in the personnel department, since the sales department is not in as favorable a position to observe the results upon production of faulty distribution policies. If the important aim of regularization becomes a basic consideration of distribution activities, some of the modes of action illustrated in the following list, and in use in progressive plants, will be found of aid, or the executives will devise others better adapted to the conditions.

Distribution Research (discussed chiefly in Chapter V) :

1. Carefully analyzing past records and present conditions in order to arrive at accurate estimates of the probable demand for the ensuing year.
2. Investigating the causes of seasonal peaks of demand.
3. Studying the possibilities of developing new uses for the products made, so that the purchase of these products may be stimulated during times of customary slack demand.
4. Seeking out new markets at home and abroad having different seasons, so that these outlets may allow for more regular production. Developing a long-time export policy with this end in view.
5. Attempting to forecast cyclical changes in business, by detailed studies of intra-organization statistics and those of outside economic conditions.

6. Planning against business depressions by discovering new outlets for goods, by developing new items capable of stimulating demand or other expedients.

7. Diagnosing noncyclical changes of long-time trend and adapting the business to the conditions.

Diversifying the Output (Chapter VI) :

Adding side-lines, fillers, and new products which may be manufactured at times different from the production periods of the main line, thus filling in the customary idle time of men, plant, and equipment.

Reducing Excessive Variations of the Same Product (first part of Chapter VII) :

Simplifying the regular lines of products by eliminating unnecessary variations and changes. (When a firm is producing an excessive number of variations of a product, all having the same seasonal peak, manufacture is reduced to small lots. Production for stock becomes uneconomical and discontinuity of work more likely.)

Modifying the Extremes of Style Changes (second part of Chapter VII) :

Finding practical means of reducing the style hazard in the shoe industry; in clothing and other style-bound trades, thus making manufacture in advance of the period of peak demand possible.

Getting the Consumer to Buy More Regularly (first part of Chapter VIII) :

Removing the obstacles which prevent the conscientious consumer from buying during times of normal slack demand.

Stimulating off-season demand by advertising, by price reductions, and intensified sales activity.

Enlisting the aid of consumers' organizations.

Securing Orders Well in Advance of Need from the Dealers (second part of Chapter VIII) :

Establishing relationships with the local dealers leading to their placing orders well in advance of the season, so that production may be begun earlier in the factory.

Developing special retail outlets, such as chain stores, stock ownership in firm by retailers, etc., to make distribution policies more acceptable.

Developing Long-range Policies of Business Expansion (first part of Chapter IX) :

Using a long-range plan of expansion as a basis for determining whether or not it is desirable for the firm to increase its plant, equipment, and personnel when a sudden rush of business occurs, so that extreme fluctuations between one year and the next may be avoided.

Coordinating Sales, Production and Other Factors Through Scientific Sales Planning (second part of Chapter IX) :

Combining the various sales policies and production requirements into a master sales plan, controlling all the operations of the business for the period of a year, and spreading out the work as equally over the months as the conditions allow.

Working out scientifically the means by which this master sales plan may be realized completely except for modifications forced by current developments.

The chief reason for presenting this summary is to make it apparent that the distribution activities listed are only in part concerned with mere selling. The policies developed constitute a technique involving a sort of thinking and planning not included in salesmanship alone. The distinction between the two types of activities is vital to an understanding of the possibilities of controlling demand. The distinction is analogous to that made in scientific management between planning and performing. As Mr. Justice Louis D. Brandeis has stated: "Planning in advance is the essence of scientific management." He was then discussing operations in the factory. The same differentiation between planning and performing must be made in the administration of the sales department, for the essence of scientific sales administration is planning in advance.

Although Frederick W. Taylor's principles of scientific management were formulated in relation to the production side of industry, the followers of Taylor have recognized the

applicability of these principles to distribution and have aided in establishing a science of distribution. A report by a committee of experts distinguished between planning and performing, calling the first "sales engineering" and the second "sales operation." Sales engineering was defined as the "making of larger plans for the marketing of a product, involving analysis of the market and the product, the preparation of master schedules, and the coordination of production, financial and selling resources." Sales operation was defined as "the actual conduct of selling operations, the selection, training, and direction of the sales force, the conduct of selling operations when salesmen are not used, and the contacts with the customer."¹

This distinction is recognized in this study, except that the term "distribution engineering" will be used in place of "sales engineering" where as technical a term as that is needed at all. Likewise, "selling" will frequently be substituted for "sales operation," and wherever possible terms in common use will be substituted for technical names of the functions listed. Various phases of "distribution engineering" are discussed in Chapters V, VI, and VII. Selling problems are reserved for Chapter VIII. Some of the important elements of scientific sales planning are summarized in Chapter IX.

V ONLY PROFITABLE BUSINESSES ARE EXAMPLES

Another reason of importance must be mentioned for treating the distribution problem at the beginning and with such emphasis. Profits are made by selling. If a firm cannot dispose of its product and is losing money, its technique, no matter how good, is under a cloud when cited to practical business men or economists. Profits should not be the whole goal of business, but they are the *sine qua non* without which business becomes a philanthropy. The methods cited in this study are used by firms which have not merely developed good management and improved the conditions of employment, but have also, *during the period for*

¹"Report of the Committee on the Organization and Functions of the Sales Operating Department," in the *Bulletin of the Taylor Society*, October, 1921, p. 208.

which their methods are discussed, secured the respect and even the envy of their competitors because of their financial success.

A business well managed but unprofitable does not provide security of employment. Sooner or later an upheaval occurs. When demand for the firm's products becomes severely curtailed and failure threatens, high managerial and technical executives are released and the whole plant organization may be disrupted. It may take years to get back to the former efficiency. Some desirable activities may not be resumed at all. All this might have been avoided if the conditions of demand had been better understood. From this point of view, as well as from the others already discussed, the place given to distribution technique in this study presents the subject of regularization in its proper setting.

CHAPTER V

THE CONTROL OF DEMAND THROUGH RESEARCH

THE need of intensive research activity with regard to the distributive function of business is apparent in almost every industry studied. The lack of it has been responsible for a good deal of the avoidable irregularity of employment. It is not necessary to argue at length the value of precise knowledge of all market factors under the complex conditions of modern business. The results of distribution research are the most convincing pleaders of their own cause. Some of the principal kinds of research that aid in determining demand will, therefore, be discussed in turn, and their use in steadying work shown by practical examples. When their importance has been demonstrated, some attention will be given to the methods of carrying on such research.

First it will be shown how seasonal irregularities may be eliminated through certain types of research, then how cyclical depressions and other deep-seated changes in demand may be anticipated and in large measure overcome. The various types of research are, however, closely related. Estimates of demand for any year, for example, cannot be made without regard to the position of that year in the business cycle, or without regard to permanent, noncyclical changes in the prosperity of an industry which may be taking place. But for purposes of discussion it is necessary to consider various phases of market analysis separately.

I ESTIMATING THE FUTURE DEMAND

Behind the sales efforts of many firms is an apparent belief that there is more or less of an inexhaustible market in which any enterprising firm can find its place and prosper. With-

out a true knowledge of the real extent of the market, sales anticipations are likely to be faulty in one or the other direction. If the dimensions of the market are exaggerated, the anticipations of the volume of orders which the firm will be able to get will tend to be excessive; while if the view of the demand is unduly restricted, the firm will set limits on its sales activity which will interfere with its power of getting extra business when needed to keep the factory going. Impartial sales research concerning the dimension of the market is, therefore, a material aid in the control of demand.

Some firms have gone in for thorough surveys of their total possible outlets for distribution and of the total consumption of their products. The methods of a survey of this type depend somewhat on the trade. The Burroughs Adding Machine Company, in 1919, had a force in its home office actually count every business enterprise in the United States, group them in twelve general lines of business, and divide them further according to four classes of business ratings. Under the classification of "manufacturers," for instance, there was a count including every manufacturer in the United States; and the number of concerns in business in each city and each town that has a post office was listed and grouped according to their classification and their ratings.

Often a firm need make only a partial survey and by plausible mathematical computation make a usable estimate of the entire market to be covered. In this and other fields certain advertising agencies have attempted to take some of the risk out of distribution by investigating minutely conditions which ordinarily are decided by mere guess. It is stated that to settle one point a sales agency sent out letters to 12,000 physicians, while the advertising of Quaker Oats was preceded by three months of investigation employing 130 men.¹

When a rational survey of the total demand for a given product in a given market has been made, the second thing to determine is the proportion of this total which a firm can reasonably expect to sell in the following year. This involves an estimate of the business in sight, as reported by

¹ E. D. Jones, *The Administration of Industrial Enterprises* (New York, 1920), p. 386.

the salesmen in the field, but should not be based on the anticipations of salesmen alone. In these anticipations "hunch" and pure feeling play an unduly large part. The self-confidence of a salesman makes him optimistic. Such estimates of sales are not likely to lead to intelligent control. They should be conducted by a statistician or a special research executive, for estimates by one whose sole interest is accurate analysis are more scientific or apt to lean more toward conservatism than exaggeration.

This contrast is exemplified in the case of a large corporation engaged principally in manufacturing farm machinery. Through eighty of its own distributing agents and their sales forces, who are in intimate touch with over 15,000 jobbers and local dealers, and by the interviews of these salesmen and of the dealers with the farmers themselves, an estimate of the farm equipment to be required is secured by the sales department every harvest period for the following year. The preliminary estimate is submitted to the factory in September, is followed by another in October, and then by still closer estimates every two or three months.

It would seem that these estimates submitted by the sales department should be the most accurate procurable, since based on intimate touch with the trade. Yet, according to one of the chief executives, almost every year for over two decades, four or five men in the office who have final supervision over such estimates and who are accustomed to scanning them have scaled these down considerably, and in every case the result has proved these revised estimates to be much nearer to the required production than those of the sales department.

No matter how "cold-blooded" an estimate made solely on the basis of salesmen's reports may be, however, it is not as yet a safe working basis. The whole previous record of the firm might be reexamined to see whether the anticipations of sales are justified by analogous situations in past history. This involves detailed analysis of the orders the firm itself has received in different years under varying economic conditions. Such an analysis has often been resisted because to practical business men the statistics of any one year seemed so different from those of the previous one or the

year before, that the gathering of more statistics on the subject appeared to be only a waste. This attitude has put that type of practical business man under a serious disadvantage. Among other effects, it has isolated him the more from facts showing an ever-recurring cycle of demand, which might have been obvious to him if the statistics of his business had been properly investigated. He did not realize that, given a knowledge of both the potential and the actual market, kept current by constant research and modification, and considered in the light of past experience, the company has a yardstick against which its business can be measured.

A good illustration of the effective use of sales analysis applied solely to the quantitative aspect of demand is that of the Procter & Gamble Company, one of the oldest soap-manufacturing concerns in the world. In 1920, the firm made a systematic study of its sales with the intention of steadying production. By going back over its records for several decades, the firm came to the realization that its annual sales from year to year did not really differ much, and that the increase was so regular as to allow fairly accurate prediction. The result has been a fundamental revision of its methods of operation. It was decided to make advance estimates twice a year of the probable sales for the ensuing six months and operate on this basis.

In this the firm found itself even more successful than anticipated. The estimates of sales have proved very close to the amount of orders actually received, and the sales department has exerted itself to make the figures tally. Production was laid out on the basis of these estimates. In the middle of each month the quantities to be produced in the following month are scheduled, giving opportunity for revisions. Production is held rigidly to the schedule. When orders are slack, production continues and the goods are put in the warehouses until the more brisk demand anticipated during these six-month periods reduces the stocks on hand. After two and one-half years of experiment, the confidence of the firm in its ability to estimate its sales was such that it adopted a plan guaranteeing forty-eight weeks of employment to its regular workers. This plan is described in a later chapter.

The Walworth Manufacturing Company has become a strong advocate of the method of scientific study of demand. After enumerating striking advantages of conducting business on the basis of sales research, its president states finally:

Of all these benefits, probably the greatest has been our ability to operate on an even basis throughout the year. Under the old conditions we would have produced 16 per cent of our total requirements in the first quarter; 22 per cent in the second quarter; 28 per cent in the third quarter; and 34 per cent in the fourth quarter. In 1922 it was possible to approximately equalize the quarterly production figures. In these days when seasonal employment is one of the country's greatest problems, when labor turnover is great and when an actual shortage of labor has occurred, continuous employment at fair wages is the stimulus to the good workman that no temporary attraction can equal.¹

The American Radiator Company, depending for its demand upon building conditions, anticipates its sales by close analysis of its market, so that it is rarely more than a few per cent wrong in its estimate. For years the sales department has given the factory the basic condition for regular production. Its demand is dominated by a great seasonal peak load, but as its product is standardized it has manufactured ahead for stock.

II ANALYZING SEASONAL DEMAND

When a product is marked by seasonal demand, the causes should be carefully investigated so that any possibilities of control will not be overlooked. A large firm manufacturing film used by photographers once became aware that a certain type of photographic paper was selling very well. As the demand kept increasing, the use of estimates based on each previous month led to the production of more and more for advance sale. The demand seemed to be growing rapidly. To get ahead of the situation, the production of an even greater amount than the estimates required was scheduled. Just that month, however, there came a sudden and absolute

¹ Howard Coonley, "The Control of an Industry in the Business Cycle," in the *Harvard Business Review*, July, 1923, p. 397. (Italics not in original.)

cessation of demand for that product. Men had to be laid off in that department. A hasty investigation as to the cause, undertaken at this late stage of the situation, showed that practically all of this particular photographic paper had been bought by the photographers of Coney Island, among whom it had come into fashion, and since their season more or less suddenly ended on September 1st, their purchases had at once fallen off on that date.

The analysis of the sale of paring knives by the Winchester Repeating Arms Company illustrates further the control available by close probing of sales. The company divides the dealers into four classes: towns under 5,000; 5,000 to 15,000; 15,000 to 50,000; and over 50,000. In the larger stores located in cities, the peak of demand for paring knives does not show much of a variation from the rest of the year and the load is fairly well distributed. But in towns of under 5,000 the peak is "very sharp and high and not very wide, because in the country towns they do a vast amount of canning and it comes right in the fall of the year."¹ With this knowledge as a starting point, the firm can plan its sales activity so as to reduce the peak of demand.

A large foundry made a complete analysis of sales by months of each of the various patterns and sizes manufactured by it. Noting that a considerable proportion of its product was not subject to seasonal demand, it was enabled to make production estimates which allowed it to manufacture some of these products for stock in times when the factory was idle.

III DEVELOPING OFF-SEASON OUTLETS

1 *New Uses and Markets for the Products*

The mere fact that the existing demand for a product has always been limited to certain sources or has been seasonal in nature is not conclusive evidence that the demand for this product is inherently restricted. Perhaps the varied possibilities of the use of the product have not been adequately

¹ W. E. Freeland, "Coordination of Sales with Scientific Production," in the *Bulletin of the Taylor Society*, October, 1920, p. 207.

exploited. Aside from the possibility of changing the buying habits of the consumer and the dealer, treated at length among the selling and advertising problems discussed in Chapter VIII, seasonality of purchase should operate merely as a spur to the discovery of new uses that will induce consumption at other times and thus increase total demand as well. In this the realm of imagination and research are often unlimited, and the firms alert to the opportunities of finding elements in their products to serve purposes not previously thought of are likely to be rewarded by permanent increases in the market for their output. Instances of such accomplishments, where the aim was either to sell a product whose regular market had fallen off or to create additional peaks of demand, will demonstrate the advantages of research into new uses.

Yeast until recently was almost entirely a product for use in baking. Home baking was declining, it is said, and the market for yeast was not deemed satisfactory. As a consequence, there came the discovery that Fleischman's yeast had the vitamins and health-giving qualities without which humanity will not reach its perfect flowering. The exploitation of the discovery and the advocacy by the company of the more general use of yeast as a tonic and a food have not only led to the widest consumption in cake form, but have actually brought it to the soda fountain—an entirely new outlet—to vie with zoolac and fermillac and other healthful drinks.

That the search for new uses may prove to be one of the chief ways in which an industry becomes regularized is the conclusion to be drawn also from a study of the history of gas manufacture. When first developed, even the fact that a gas plant had a virtual monopoly in a community did not protect it against seasonal fluctuations, for in the short cold days of winter much more gas was used in homes than in summer. But so many uses of gas in home, factory, and office have been continuously developed that the consumption for lighting and heating purposes has been vastly increasing. Aided by the normal growth of population, the advance has been so rapid that variations due to the seasons have been practically absorbed. The New York Consolidated Gas

Company is thus hardly a seasonal industry. If regularity of employment were the aim of management, the employment curve could probably be made to resemble a straight line, for it is fairly steady now except for a slight summer peak due to construction work undertaken at that time of the year. The same experience is true of electricity, though in less degree.

According to one of the officers of the Dennison Company, the firm had been in the box business for fifty years before it had occurred to the company that anyone but a jeweler could use a fine box. As the jewelers purchased about 55 per cent of their yearly requirements during the Christmas period, the jewelry-box trade was highly seasonal. Since only 45 per cent of the boxes were manufactured during the rest of the year, there was usually a serious slack during these months that made it necessary to reduce the labor force. But the skilled employees laid off were often permanently lost. When the season opened, the scarcity of trained workers created a great strain and many jewelers were disappointed because the factory could not produce the boxes ordered.

Impelled by these considerations, the firm sought new outlets and discovered unexplored uses for quality boxes in other lines. These not only supplied increased business but, at the same time, brought orders less seasonal in nature. More and more uses for fine boxes were found or developed, and these new outlets gave increasing opportunity for maintaining an even flow of production. Boxes are now sold to powder and perfume makers, opticians, local club banquets, pen and pencil manufacturers, haberdashers, druggists, stationers, musical-instrument supply-makers and a host of other trades. In 1921, orders for boxes by jewelers fell off seriously because of the depression. But the various new outlets saved the situation because the other trades were more actively canvassed. The culmination of the development of other uses for boxes allowed the firm to make additional profit at the same time that it kept the box-makers steadily employed.

Johns-Manville, Inc., was faced at the beginning of 1921 with an apparently poor outlook for the disposal of its as-

bestos shingles because of the depression in new building operations. Out of a careful study of the situation came the discovery of a new market. The company worked out a plan by which its asbestos shingles could be used in reshingling old houses and is said to have had great success in developing this outlet.¹

"Dromedary" dates, manufactured by the Hills Brothers Company, were at one time used almost entirely in the fall. But the company has devised uses of dates in so many different kinds of salads that these dates are now sold at other times of the year and the difference between the peak demand in the fall and that in other months has been somewhat lessened.

If new uses cannot be developed, a study should be made of possible markets which may eliminate seasonality of demand. Some may be found which almost dovetail with the customary slack in trade. Few people know that residents of San Francisco leave the city in summer because of cool weather. On August 19, 1922, the *New York Times* published an item that the people in San Francisco had worn their overcoats and furs on the previous day because of a chill, while in Springfield, Illinois, the thermometer on the same day had registered as high as 110°. To discover such contrasts in markets and to profit by them where possible should be one of the aims of research.

A firm which makes a comparison of its clientele with the maximum number of customers possible may find that there are great rifts in its legitimate field of distribution, vocationally as well as geographically. If the analysis is according to the various vocational groups rather than areas, it may be found that many firms in an industry are using a much more restricted line than others, or that the product has not been brought to the attention of certain trades at all.

2 *Exporting for Stabilization*

The differences in the climate, seasons, and prosperity of various countries have suggested to many people the thought of finding a stabilizer of demand in the opportunities for

¹ *Printers' Ink*, June 23, 1921, p. 17.

selling goods in foreign markets. The field of exports has thus been looked upon as an aid in overcoming both cyclical depression and seasonal slack. That export trade can often be made an important aid in stabilizing demand is undoubtedly true, but the problems involved make this a matter requiring much more developed sales technique than is usually perceived.

To begin with, the assumption that when there is a serious depression in this country an outlet can be found in another is incorrect to the extent that it assumes the major crises are only national in their effect. While there has been some difference in the degree and time in which depressions in the various countries have occurred, business cycles run a substantially similar course in countries having important commercial relations.¹ Therefore, the market in the customer country may be depressed at approximately the same time as that of the producer's. To take advantage of the opportunities of selling to those countries in which the degree of depression would not be a bar to purchase, the firm engaged in export must have a grasp of world economics and, therefore, must conduct intensive research concerning conditions in foreign countries.

For many other reasons, to dispose of goods in a foreign market requires a degree of planning and promotion which few firms are likely to give to this matter. It takes years of experience to establish the proper contacts, to learn the customs of the country, and to acquire the knowledge necessary to deal across international boundaries. Experienced business men have pointed out that the manufacturer who conceives the export field as one which may serve as a dumping ground for his products and which is to be neglected when domestic business is satisfactory will find foreign trade disappointing.

Mr. Redfield, a close student of business problems and formerly Secretary of Commerce, pointed out some years ago concerning the export trade that the manufacturer "should know before he starts that it is a 'long distance'

¹ Wesley C. Mitchell, *Business Cycles* (University of California, Berkeley, 1913).

business that can not be hurried, and which, if it is ever to flow as a river, must begin as a brook.”¹

To take advantage of foreign trade for the particular purpose of stabilization, a firm must, therefore, cultivate the new fields for a long period of time and make the export market one of its regular outlets, varying the pressure on foreign sales according to domestic demand.

It is important to note that while the money required to establish oneself in export is more likely to be available in prosperity than in depression, in good times the domestic sales may be so great as to tax the capacity of the factory. The manufacturer is, therefore, disinclined to search for new fields. When depression occurs, manufacturers are anxious to export, but even if foreign markets are available, the possible benefits cannot be realized unless such fields have been studied and prepared long in advance.

The export policy which first took form in 1910 of the Dennison Company is an example of far-sighted planning. Although in the 1920 “boom” the factory could not produce to the extent its domestic sales required, the needs of the future were considered and export trade fostered. In the *Round Robin* of January, 1920, a magazine published by the company for its employees, an article by the export manager shows a spirit and purpose behind the firm’s efforts that might well be emulated by those who desire to establish themselves permanently in foreign trade:

We are frequently asked why we export our goods to foreign countries when we find difficulty in supplying the demand at home. The answer is first, because we have a demand for our products from all parts of the world. . . . In the second place, we learn a great deal from contact with the foreign public, and by competing with manufacturers all over the world we keep on the alert to bring our products up to the highest standard of quality possible.

We are developing our foreign market on a well-defined plan. On our initial visit to a new country we make a careful survey of all the elements to learn whether or not we could expect to sell enough to develop the demand. We find out what the customs

¹ William C. Redfield, *The New Industrial Day* (New York, 1912), p. 55.

duty will be and how much it will cost to lay our goods down in the customer's place, what he will have to sell at to make a profit, and finally whether the public will pay the price. The investigation frequently involves a study of business customs and home life. We compare our goods with those offered by the dealers and also note the prices.

By introducing our goods in the export field we are building for the future and will find the foreign market an aid in stabilizing production at times when business is not so good at home. We can with very little effort increase our activities in the foreign field and thereby keep sales up.

The late Mr. A. B. Farquhar, president, A. B. Farquhar Company, Ltd., manufacturers of farm machinery, in reviewing some of the achievements of his company, recently stated that in every important business depression except the recent one, he found the export side of his business "little short of a Godsend." Since the close of the Civil War he has tried to keep a rough average of one-quarter of the output of his factories for overseas sale, varying the proportion with the state of domestic trade. "The result," Mr. Farquhar claims, "has been that our factory comes rather close to holding a record for continuous operation. We have rarely shut-down or even gone on part time, at least until the recent depression."¹ In connection with this statement Mr. Farquhar insisted that this continuous operation would not have been possible without the overseas business, and that several times the export field saved the firm's commercial record. In the panic of 1873 it enabled the firm to go on with but a two-day shut-down. He also states that "during the years 1893 to 1897, when domestic trade was very dull indeed, we lived largely upon our export business."² Yet these desirable results were not achieved at the cost of extensive branch offices involving heavy fixed charges, but rather by the setting up of an organization which was "always in light marching order."³

What the export situation will be in the future it is at present hard for the closest students to predict. Certainly

¹ *System*, June, 1921, p. 815.

² *Ibid.*, p. 815.

³ *Ibid.*, p. 826.

the problems are likely to be complicated. The failure of so large a proportion of our manufacturers in the past to enter the exporting field at all will make it somewhat harder for them to understand the disturbing conditions which they are likely to find. A report to the Cleveland garment manufacturers concerning their distribution policies, covering a period of great prosperity, stated that "There are only two foreign accounts sold by members of the association. One is in England and the other in Australia. There is practically no attempt to enter foreign markets." In view of the fact that the sale of clothes depends so largely on climate, and weather is often precisely opposite in different places at the same time of the year, it is regrettable that there was not more experience to report as to the possibilities of regulating demand by the cultivation of foreign trade.

It is not intended by this method that the problem of regular work in America be solved at the expense of other countries. It is conceivable that by international trade the differences in climate, customs, general business conditions, and other trade factors among various countries may eventually allow for a more or less substantial equilibrium in demand to be established in the world as a whole. In practice the legal and natural restraints on export between countries make the problem much more intricate. But even under the best of conditions such stabilization of demand through export as has been suggested, especially in the regularization of seasonal trades, can be accomplished only by prolonged and intensive research, supplemented by patient experimentation.

Here is a thought for those firms which, in times of prosperity, are hard put to find means of disposing of excess profits, but which at other times are paralyzed for lack of business. Any losses sustained in experimental and development work during prosperity will not prove a grave burden. The chance that the effort will eventually rebound to the firm's benefit makes it well worth taking.

It is true that all firms cannot make adequate progress in maintaining continuous production by these methods because the range of products which they manufacture is unduly restricted. Were they to add side-lines or to diversify their output, they might find it easier to provide work at times

when their main lines of products cannot be manufactured. This subject involves research, but is so important and is dependent upon so many other practical considerations that it is postponed to the next chapter, where it is discussed at length.

IV FORECASTING CYCLICAL CHANGES

As already indicated, one cannot make estimates with regard to the demand in any season without taking into account the trend of general business conditions. Without the proper viewpoint, comparison between any one year and the previous ones seems to show no rhyme or reason at all and, therefore, such statistics appear useless for executive decision. An understanding of the business cycle, however, both in its general aspects and in the experience of the particular firm or industry, illuminates the facts. It gives them meaning and stimulates curiosity and experiment. Different industries have different cycles. The movement of any one year of a cycle may be seen to have a predecessor in analogous years of previous cyclical periods. Will the change continue in the same direction as the former cycle year did?—will it come as soon, earlier, or later?—will the degree of change be as great, greater, or less?—these and other questions make detailed statistical research of practical interest in the control of demand.

The main question which concerns us here with regard to studying the movements of the business cycle is whether such study is still all "theory," or is actually giving promise of proving a scientific aid to prediction. The uses which the resourceful executive may make of such advance knowledge are then discussed.

In attempting to discover reliable clues to the future course of business, the research method upon which most reliance is placed is statistical correlation. The Eastman Kodak Company has established a research department which every month compares statistically the company's sales with economic conditions in general and with the trend in various trades. Among special indexes used for these comparisons are the figures for coal, petroleum, pig iron and copper pro-

duction, bank clearings, mail-order sales, chain-store sales, postal receipts, department stores, freight-car movements, unfilled orders of the United States Steel Corporation, and agate lines of advertising. The attempt is made to see if there is a relationship with one or more of these indexes that shows a high degree of constancy and is definitely measurable in terms of direction of change, time of change, and degree of change. It has already been found that a well-defined relation between certain of these indexes and the company's sales exists, notably with the Harvard "B" curve of business.¹

The Walworth Manufacturing Company inaugurated a Planning and Statistics section only a few years ago. Among its first conclusions was the following, as stated by President Coonley:

We discovered that the . . . suggestion of the economists also found application in our practice. We had not only a business cycle of our own, but our cycle had a definite measurable relation to that of general business. And we were, therefore, in position to use in a very tangible way the forecasts which constantly passed through the Planning and Statistics Section.²

The index of general business found most useful was Curve B of the Harvard Economic Service, which seemed to give a fairly close basis for determining the length of time the Walworth curve of business would continue in a given direction before turning. It was later found that the degree of increase or decrease in the company's sales was apparently correlated closely with the F. W. Dodge Company's figures for building contracts awarded.

One of the first uses of these two indexes was made in the summer of 1921, when an attempt was begun to estimate the sales for 1922. It was determined that the sales in that year would be 42 per cent greater than in 1921. It was not expected that this estimate would be so accurate as it actually turned out, for the Walworth sales in 1922 were within one half of a per cent of the amount forecast.³

¹ M. B. Folsom, "The Organization of a Statistical Department," in the *Harvard Business Review*, January, 1924, p. 187.

² Howard Coonley, *op. cit.*, p. 390.

³ *Ibid.*, p. 391.

The Dennison Company has been highly successful in anticipating the fluctuations in general business, especially in gauging the time when the 1920 depression was due. Its Commercial Research Department has attempted to set up its own index of business conditions and to determine the trend

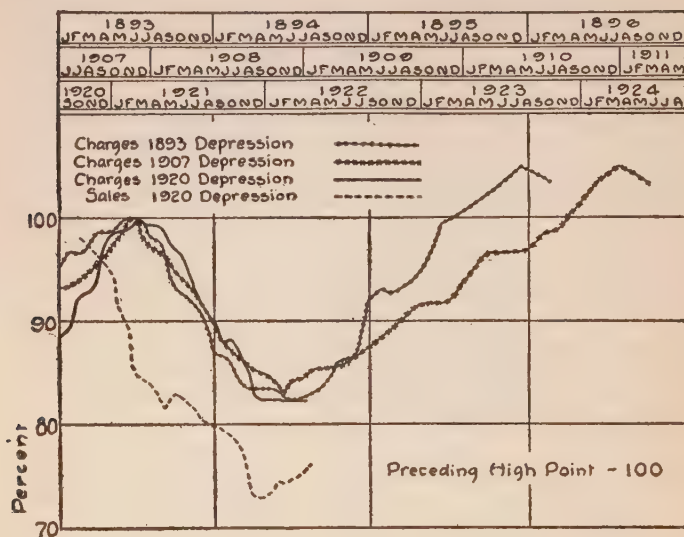


FIG. 6. AN INTRA-PLANT ANALYSIS OF THE BUSINESS CYCLE

This chart is one of the studies made by the Commercial Research Department of the Dennison Manufacturing Company from the firm's own records, as an aid to policy determination. It shows, in moving averages, a remarkable similarity in charges between the depressions of 1893 and 1907 with 1920. Sales, which move several months ahead of charges, indicated in the spring of 1922 a reassuring trend towards prosperity which was borne out by later events

through the analysis of its own sales. Fig. 6 illustrates one of the studies made in this connection in 1921. It compares the sales experience of the firm in the depression of 1920-1921 with the former depressions. It was regarded by the firm as supplying significant indications of the course of business.

If research allows for the anticipation of an adverse con-

dition affecting sales, it may also allow the adoption of means available to overcome it. The fluctuations of the business cycle are perhaps the most frequent disturbances in the growth of a business. The means by which a firm may overcome the effects of cyclical depressions are therefore given special consideration, after which other types of changes which may be anticipated are discussed.

V OVERCOMING THE EFFECTS OF CYCLICAL DEPRESSIONS

1 *Reducing Speculative Losses*

The first use of advance knowledge of an adverse change of business conditions is to promote caution. Merely knowing that a depression is coming makes it less serious, for harmful excesses are avoided. Professor Mitchell says of the English situation in 1908 that "No serious disasters were anticipated because manufacturers had received such a long warning of the crisis (from the fact that America had it first) that speculation had been kept within narrow limits,"¹ and in describing the crisis states: "Thus English business, like American business, passed from a state of high prosperity in the summer of 1907 into a state of marked depression in the summer of 1908; but the transition was accomplished without a serious epidemic of bankruptcies and without violent interruption of the usual processes of producing and distributing goods."²

Conservatism has been much more general since the boom period of 1920 and has had a good influence upon business. The advantages of caution and conservatism, as against quick but dangerous profits, are becoming appreciated, and it is understood that the alternative between acting upon unjustified optimism and unjustified apprehension is the alternative between making extra-high earnings temporarily, but perhaps endangering the business or making satisfactory profits and assuring undisturbed control. That is the soundest viewpoint.

¹ Wesley C. Mitchell, *op. cit.*, p. 545.

² *Ibid.*, p. 548.

The head of a large shoe company is said to have been unduly sensitive in 1919 to the possibilities of a change in the market. Competitors are said to have laughed roundly at his fears. But his apprehension served him admirably when the depression did arrive. He had foregone some temporary opportunities for profit, but he was not over-extended in commitments. One of his chief competitors had not been as nervous about possible changes in business. The merchandise losses of this competitor enabled the less optimistic rival to take the firm over. By this consolidation his company achieved greater sales in 1921 than ever before. The conservative policy proved more profitable by far in this instance than the short-time quest of profits would have been.

Resourceful firms want to go further than the avoidance of heavy losses through unwise purchases and commitments. They actually propose to continue their rate of growth throughout such a period by overcoming the slump in demand. Some of the possibilities in this direction will be considered in the light of what a few firms have actually accomplished.

2 Planning Against the Depression

Plans for meeting an unexpected depression and neutralizing its effects should be developed long in advance of the actual crisis, and they can be ready long before any close guess as to the date of the crisis is possible. While elements of such plans are suggested in the following paragraphs, the infinite varieties of resourcefulness displayed by business men make it of more importance that they think out their own remedy than that they be limited to remedies others have used. The Hickey-Freeman Company, for example, found the policy of maintaining its high grade of quality of great assistance during the last depression, in spite of the pressure from all sides to produce a somewhat cheaper article. It claims that when its competitors yielded to the clamor for lower-price clothing by reducing quality in order to meet price, they eventually left the Hickey-Freeman Company practically alone in its field.

3 *Intensifying Sales Activity*

The policy of more intensive sales effort has been much vaunted because some firms succeeded in maintaining sales in the last depression by the added energy of the sales force. But if narrowly conceived, this method of stabilization is only an individual remedy. It may merely mean that in a market already restricted because of depression, one firm has aggravated the situation for the others by securing an abnormal share of the available orders. It is not denied that greater intensity of sales efforts even in the customary market makes for a greater volume of purchases as a whole, through overcoming some of the reluctance that causes cessation of buying. But if carried on by too many firms, there is a great deal of waste in such competitive selling, and it may become an utter nuisance to those solicited.

With much the same limitation we must approach the possibilities of export, some problems of which were indicated in an earlier section. A coordinated system allowing for proper development, or even an allocation of territories, would offer more hope than a wild scramble for the same customers.

Intensive salesmanship in times of depression will, therefore, serve social ends better if devoted to the development of new outlets and the attraction of new markets. Human wants are insatiable, and a large number of people have not yet had some of the products of an industry brought to their attention in the most favorable light. This makes it possible actually to widen the market for goods and find new purchasers.

The policy of advertising more heavily in times of depression has some of the same advantages and disadvantages as that of more intensive salesmanship, for it is only another type of sales effort and is usually coordinate with it. Advertising can serve a long-range purpose, as will be shown. But what would be the effect on the consumer if all firms let loose an inundation of advertising appeals more or less simultaneously?

We do know that intensive sales activity has helped many firms to avoid serious disruption of working schedules.

Even some of the foreign firms, with more disturbing economic conditions to fight against, managed to stave off much unemployment. The Rowntree Cocoa Company, of York, England, tried numerous expedients in an effort to maintain the volume of production. It added greatly to its selling force and spent unusually large sums on advertising. A careful investigation was made, both in America and in Great Britain, into the science of salesmanship. These and similar efforts cut down the amount of short time during even the worst part of the depression to comparatively small proportions.¹

When intensive marketing research is a continuous activity, a firm is in a position to begin intensive sales efforts at a moment's notice. One firm which makes various paper products made a complete list of all existing trades and classified them in groups. Over the course of many months, a study of the possible uses of its products was made in each of these trades. In a few localities an investigation was made of every possible prospect.

Salesmen were also assigned the function of studying the details of the use of various products in different trades. Thus, a salesman in a New Jersey silk-weaving district was assigned the duty of going through various factories to watch the processes of manufacture, to study the uses of the firm's products, and to discover, if possible, opportunities for the use of other items made by the firm. The reports are not only helpful to the headquarters office, but are presented before the local groups of salesmen at their meetings, which thus become much more educational in purpose and stimulate ideas.

The value of this research is that if the company produces more of a certain item than required in its usual market, the list at once suggests where the excess may be disposed of; and *vice versa*, if the firm is not selling enough to keep the factory busy, the outlets for various products are perceived and the advisability or nonadvisability of adding salesmen for certain territories can be decided more accurately. With such knowledge at its command, the company is ready to offer the greatest resistance to a threatened diminution in its

¹ Letter to the author.

volume of sales and keeps production and employment on a more constant level than it would otherwise be

4 *Stimulating Greater Demand by Novelty*

One of the most promising ways of stimulating new demand during depression is the development of an object of new appeal. Professor Mitchell calls attention to the stimulating effects among producers of novelties during times of depression,¹ and one industrial leader states emphatically that "Things that buyers have never had before they will often buy, no matter how bad business is." The enormous expansion in the sale of radio equipment during the depression is an excellent instance of the appeal of novelty. The Victor Company presents an example of the successful promotion of business during the general depression of 1921. By constantly developing new and appealing Victrola records and also putting out particularly vigorous sales efforts, the factories not only maintained regular production when other firms seemed paralyzed, but even found the need of overtime work. The advertising appropriation for 1921 was the greatest the firm had ever made. It is not surprising, therefore, that for the first five months in 1921 the sales reported were considerably greater than for any corresponding period in the company's history.²

One cannot cite the advantages of stimulating greater demand by the production of a needed article of merit, not available before, without calling attention to the danger that the appeal to novelty might be misdirected into the narrow competitive device of manufacturing needless variations of a product merely to give individual firms a talking point. This would lead to great economic waste and ultimately to the disadvantage of the industry itself, as shown in Chapter VII, where the subject is discussed at length. In some trades the method of appealing to novelty and style as an attempt of individual firms to stimulate demand may result in a severe set-back for the movement for simplification,

¹ Wesley C. Mitchell, *op. cit.*, p. 566.

² *Printers' Ink*, July 14, 1921, pp. 3-4.

making the industry less stable because dependent upon style and fad.

5 *The Methods Used in the Dennison Company*

The success of the Dennison Manufacturing Company in preparing against depression by the development of new ideas is perhaps the most widely known effort to overcome a falling off in customary demand. For many years the subject of business cycles has been one of the chief objects of study of the commercial research department and one of the main interests of the president of the company. The possibility of greater selling resistance at some later time is an ever-present calculation in the company's planning. Even when, in July, 1919, the company's monthly sales exceeded \$1,000,000 for the first time in its history, its employee magazine, the *Round Robin*, coupled its jubilant announcement of the firm's success with this admonition to the salesmen: "But let us remember that the real test of selling ability is before us. We want those million-dollar months during the next depression, which, when it comes, promises to be a real one."

As conditions of prosperity grew more intense, the firm became more and more sure that the depression could not be far off, and around the first of the year 1920 had come to believe that business conditions would take a sharp turn for the worse in the fall. This prediction, it may be noted in passing, coincided surprisingly with the actual facts. Practical measures to anticipate and overcome the obstacles were at once instituted. Although the firm was at that time over-sold and was rationing its customers, a conference of sales managers was held at Framingham in January, 1920, at which the means of preparing for the depression were discussed. This policy and other measures of the company thus made the important sales executives fully conscious of the approaching storm and also prepared the minds of the salesmen for the troublesome times expected.

Although more salesmen were not needed at that time, the company began to add new men to the sales force. The purpose of this was to take advantage of the period of pros-

perity, when sales were much easier to make, as a time to train the new salesmen and to inspire them with self-confidence. They were, however, apprised of the difficulties they might meet when conditions changed. Intensive sales analyses were undertaken to discover new outlets for goods. Territories were divided. When the crisis came, the company was therefore unusually well prepared. In contrast with those firms which release salesmen in times of depression—when they need them most—the Dennison sales organization in 1921 was 30 per cent larger than that in the year before, and the added vitality proved a powerful force in helping to keep sales from diminishing more than a slight amount in volume, as compared to the “boom” year of 1920.

As a support to the increased number of salesmen several new lines held in abeyance were released. This is one of the master strokes of Dennison policy. Before 1920, the company had discovered the possibility of hats for ladies made of the better quality of crêpe paper, and had become convinced, through experimentation in various districts, that the idea would be exceedingly popular. Beach beauties could make themselves a hat to match every skirt! As new orders from this source were not needed, the sale of crêpe paper for this purpose was not pushed. But in 1921, when the market for crêpe paper for other uses fell off, this new possibility was vigorously exploited, creating such a large demand that the crêpe-paper factory production surpassed the record of any previous year. The purchase of crêpe paper for summer hats is believed to have been responsible for a considerable amount of the output required.

The company had also studied the possibilities of using sealing wax in craft work on beads, ornaments, and the like, and was ready to promote the sale of sealing wax for this purpose. The stimulation of sales of wax for such craft work resulted in a demand that forced overtime on the wax department during the depression.

In support of the other methods of preparation, the advertising policy of the Dennison Company also is adapted to the program of overcoming cyclical depressions. Instead of making the largest appropriations for publicity during periods of prosperity, when it may be least effective in the long run,

the policy is exactly the reverse. Some years ago a plan was adopted which requires the firm to look ahead five years when making advertising appropriations, setting aside annual amounts based on average conditions. The plan is not a fixed one because at the end of every year another year is added and the plan modified if necessary. The policy is described in the company's annual report for the year 1921, as follows:

In good times the advertising is exceedingly moderate, just enough to retain the momentum and keep our name and merchandise before the public. In periods of business depression, however, all forms of publicity are employed to the fullest degree, utilizing to good advantage the advertising appropriations which were neither needed nor spent during the time of prosperity.

Concretely applied in the advertising of one group of products, the actual appropriations during certain years were as follows:

Year	Amount	Year	Amount
1915	\$164	1919	\$ 142
1916	364	1920	819
1917	509	1921	16,906
1918	92	1922	17,638
		1923	7,009

It is evident that this policy requires a longer range point of view than is natural with the majority of business men. Many a manufacturer would have taken full advantage of opportunities when they occurred, and thus might have overtaxed the capacity of the organization to such an extent that instead of balanced and continuous production, in the long run, he would have had unbalanced production and a wide fluctuation of business.

The careful attention given to effective advertising can be seen in the fact that in 1921 over 65,000 inquiries or requests for merchandise were elicited; and that during 1922, inquiries in response to advertisements were reported in June to have come in at a rate which promised over 100,000 for the year. In addition, plans for a direct-by-mail campaign to reach 800,000 persons were being followed out.

In considering the methods described, the question still remains as to whether this resourcefulness by one group of firms really adds to the total amount of purchases or represents merely a shifting of demand. The truth would seem to lie somewhere between these two alternatives. There is no doubt that in many instances the purchase of such a product as radio equipment has taken the place of the purchase of a victrola, a bicycle, or a set of books, but it is undeniable that in other instances the appeal of the new has resulted in an expenditure for recreation higher than would have been undertaken otherwise. During depressions the amount of money available for investment is far in excess of current requirements, while the amount of purchasing is unusually restricted. To the extent that sales promotion induces less saving and more expenditure at those times, it tends to stabilize demand.

It is not proposed that new goods should be developed merely for depression. The net result might be as bad as the make-work projects by governments faced with general unemployment. But if new goods are partly withheld during good times, so that no more are distributed than would normally be required, the effect of special sales promotion in depression periods would be particularly worth while and a considerable improvement over an unplanned distribution. The more that the development of new ideas and other types of sales promotion are directed towards increasing the sum total of public expenditure, in depression periods, as against the restraint characteristic of bad times, the less such methods become purely individual remedies and the greater their effect in stabilizing employment.

6 Maintaining Demand by Lowering Price

The policy as to prices of products sold often has an important bearing on the success of a long-range plan. Such price reductions for the purpose of stimulating trade, whether to secure temporary relief or a permanent widening of the market, are not matters of simple logic, for, while it would seem that by reducing the price of an article one-half,

a much larger number of people should be able to buy, the exact effect of such a price reduction on sales can be anticipated only with difficulty. In the case of staple articles, such as salt, sugar, work shoes, etc., which people buy even in the face of high prices, a reduction in price may not be productive of a greatly augmented sale. But where the product is a luxury or convenience, and the price of it is far above that which a large number of people desiring the article can afford, a price reduction may allow for a remarkable widening of market. The more elastic the demand, the more sales may be increased by price cutting, but where the demand is inelastic, the reduction of price tends rather to increase the sales of a firm at the expense of its competitor than increase the total demand.

There are many products which a vast number of consumers have either not been able to purchase at all or which they would like to purchase more frequently and in greater quantity. By sharing the economies of operation on a larger and larger scale of production with the public, an ever-widening market may be secured which will assure continuous expansion along desired lines. The Ford Motor Company is the most conspicuous example, and it is interesting to note that the effect of the business depression of 1921 on the company was not serious. During 1920 and early 1921 it increased its production enormously and the ever-widening market produced by the progressive lowering of price makes its future seem assured.

The accessories which many products require make a low price policy for the main line extremely profitable. The competition of German-made Gillette razors, selling at a fraction of the price, is said to have increased greatly the sale of the Gillette blades. Similarly, the sale of the cheaper grades of phonographs for use in camping, canoeing, and other purposes has so stimulated the sale of records as to make it not unlikely that the lower the price of good victrolas, the more the company might profit because of the wider purchase of its other products. These matters are mentioned because to some firms a far-sighted price policy may give the opportunity to expand demand so much as to absorb seasonal fluctua-

tions and often even to overcome to a considerable extent the effects of cyclical depressions.¹

When prosperity begins to change to crisis the action which a firm should take concerning prices is perplexing. A real dilemma may present itself. While old prices cannot be maintained with success, a price reduction may result in an even worse situation. Buying is so much a matter of mob psychology, that when everybody expects the price to rise, all buy, but when a reduction in price suggests the probability of further reductions, all postpone their purchases as much as they can, buying only in minute quantities. Inasmuch as prospects of price changes rather than the inherent values represented by prices affect buying, sales may be retarded even by a price below the most efficient production cost.

When a boom quickly turns into crisis and the prices of raw materials, as well as finished stocks, have taken a sudden steep drop, the situation confronting the business man usually requires radical adjustment to the new price conditions. But too often he looks back to the past at his costs rather than to the future, and holds back in the hope of realizing some of his outlay. The longer he hesitates the more embarrassing circumstances may become. Skillful handling of the price factor is, therefore, an essential problem of business adaptation.

The price policy to be pursued to maintain demand is far from clear. On the one hand we have such testimony as the following:

¹ This, indeed, is the chief remedy for cyclical depressions and unemployment long urged by the British economist, J. A. Hobson. In his recent volume, *The Economics of Unemployment* (New York, 1923, 157 pp.), he contends that "The general shrinkage of effective demand which constitutes a cyclical depression implies a failure of consumption to keep pace with production in the industrial world taken as a whole." (p. 30.) If wages were increased and prices reduced, until a proper ratio between production and consumption was achieved, there would, in his opinion, be no reason why great prosperity could not be made permanent and cyclical unemployment eliminated. However, the important objections to the over-production and under-consumption theories of Hobson and others which have long been raised by the statistical economists, such as Wesley C. Mitchell, are not referred to or answered in this volume.

The vice-president of a company making goods for the automobile industry, motor manufacturers, and manufacturers in general, states that, despite the cutting of its prices to a little over the cost of direct labor and material, the firm has not succeeded in stimulating any real demand for its product. Its customers' business being only one-third of normal, this firm feels that it cannot expect more than the same fraction of its normal business.¹

But, on the other hand, if we observe the methods pursued during a depression by some of the best American firms, we find considerable support for the policy of prompt reduction of inventories, and adjustment even at a great loss to the new price level. The idea back of it usually is that if business has to get back to "normal," it had better have an effective surgical operation than a long illness and a prolonged period of recuperation. The Ford Motor Company swallowed its loss in inventory values and was among the first to make a radical readjustment. This first drop in its prices in the fall of 1920 was followed by five others during the next two years.

The action of the International Shoe Company is particularly worth recording:

In June, 1920, we had on hand unfilled orders of some \$25,000,-000 without a single guaranty of prices. Guaranty of prices tends to create fictitious values and hold up prices when the market for raw materials may have fallen to a very low base and might enable the manufacturer to produce his merchandise on a much lower basis. We were not leaning on merchandise. Without having agreed to make any change in price, we felt that it was only right that we should ship to our customers our shoes at the lowest price at which we were able to make them plus a reasonable and small margin of profit. With that in mind we began to change our prices on these unfilled orders and ship them out at eight and one-half million dollars below the stipulated prices at which they had been sold. That bears directly on the ability to have kept factories running during the past eighteen months. From that there was an ever-widening circle of good will developed. We made the impression on our customers

¹United States Department of Labor. *Monthly Labor Review*, January, 1922, p. 166.

—which we felt in our hearts—that we were trying to deliver to them the best standard of value under any and all conditions that the market would afford.

So last year, a year in which the shoe industry of America was under serious depression, in numbers of pairs our business showed a 20-per-cent increase above the highest year that we had ever shown before.¹

The Printz-Biederman Company suffered an enormous decrease of inventory value in 1920, but by taking it all in a big gulp, freed itself sooner than others from the paralysis which affected the industry. At one time during the worst period it had to call for help on a number of other backward-looking plants to produce the orders it was securing. An article by the president of the Interwoven Stocking Company states that in part of the year 1921 the company produced the largest output it ever turned out for any previous period of that length, and that it had been running at full blast continuously for many months. The situation is explained as follows:

The price reduction was probably the biggest single factor in bringing about Interwoven's present enviable situation. The company began billing on the first of last November on the new price basis, first notice of the revision having been sent out October 8. And by this one bold stroke it won for itself the prestige of having lowered the price on socks to meet the public's and the dealer's wishes. It was a master stroke, and subsequent events proved the wisdom of it. It took a bitter dose with a grin.²

VI DIAGNOSING NONCYCLICAL CHANGES

Aside from the trend in response to the business cycle, the special conditions of each industry need to be studied. The tastes and habits of the community, and other influences affecting demand, are changing continually. The changes which lead to permanent reduction in the demand for a particular product are, indeed, more serious than cyclical depressions in trade. In 1899, bicycles were exceedingly

¹ *Printers' Ink*, January 26, 1922, p. 138.

² *Printers' Ink*, November 10, 1921, p. 142.

popular and 17,525 workers were employed. In 1904, the number of employees had fallen to 3,319, and the number continued to decline, although the growth of the motorcycle industry caused a partial recovery.¹ The suspender manufacturer who a decade or two ago analyzed the conditions of his industry probably did not invest heavily in new equipment for the manufacture of such products, but turned to the production of belts or other commodities for which the demand was growing. An industry may have become overdeveloped. A knowledge of this gives a better perspective concerning the competition likely to be met.

These and other tendencies in industry, when correctly appraised, help to shape policies which make for adaptability of firms to the changing industrial conditions, and thus aid in making employment more regular. The Gillette Safety Razor Company gives an instance of this kind. In 1921, some of the important Gillette patents for safety razors had expired. German razors and others flooded the market at a fraction of the price charged by the Gillette Company, yet the firm was so busy in 1921 that the factories found night work necessary. This was due to an improvement of alleged importance in the razor, patented with respect to this slight change, by which that part of the public which likes to experiment was led to purchase the new Gillette model.

Often the cause of calamity to an established firm is the invention of an improved or different product by a newcomer. This is frequently the firm's own fault for not being alert. The success in manufacturing a product which may happen to be the best at the moment often makes the manufacturer blind to the need for continuous attempts to improve it. In time the varied tests to which the consumers put the product are likely to suggest numerous modifications. The manufacturer, however, in many cases, has lost his impartial approach and does not appreciate the need for perpetual readjustment. An enterprising competitor enters his field and uses the existing products as starting points for evolving a much better line.

Frequently a newcomer in business brings out a product superior in many ways to those made by the established con-

¹ U. S. Census, 1910, vol. viii, p. 474.

cerns of great reputation. The Winchester Company, in entering the manufacture of new lines, is said to have improved upon the product of older firms in every instance. When some of these betterments were pointed out to the author by an enthusiastic dealer, it seemed hard to understand how even routine and unprogressive manufacture had allowed such defects to remain. In addition to its own technical investigations, the Winchester Company had employed a number of outside research agencies to make intensive studies of consumer experience, both by actual field investigations and by numerous interviews with dealers, and had used to good stead all the suggestions for important improvements.

In a New England concern manufacturing specialties, the duty of keeping abreast of the times is an ever-present element of operations and is the occasion for much field work by the chief officers. The sales force is encouraged in various ways to send in ideas for improvements and to report complaints. A retail store is conducted in each of four large cities, largely as a means of maintaining direct contact with consumers, in order to profit by their reaction to existing products, as well as to new ones with which the firm may experiment. In the factory the chemical and physical research departments try to achieve such improvements as the field may suggest, and engage in independent research.

If a firm is not scientifically studying conditions affecting the excellence of its line, the best that can be hoped for is that the new firm which is evolving the improved product will be located near by and allow for the absorption of the workers released. As this is not the case usually, an unprogressive attitude toward possible improvements results in a disturbance of business that either forces employees to migrate to places where the industry is becoming more prosperous or compels them to seek other occupations in the neighborhood. It is thus an unsettling element in economic life.

A study of the sources of raw material may also bring to light important facts with regard to the industry. Thus, it is estimated that in Wisconsin there are only about eight years of wood pulp left. The Maine paper mills and the New Hampshire mills are said to be faced with a similar con-

dition, and the industry shows a tendency to locate in Canada. If a plant ascertains it is located where, at some future date, it will be at a disadvantage with regard to raw materials, it will at least not expand its plant in the old neighborhood, but will build adjacent to the source. This means more permanent industrial centers and more secure employment.

The cautious anticipation and advance planning of our progressive firms is further illustrated by the following statement of Henry Ford:

Also we do not want to be held up in production or have the expense of production increased by any possible shortage in a particular material, so we have for most parts worked out substitute materials. Vanadium steel, for instance, is our principal steel. With it we can get the greatest strength with the least weight, but it would not be good business to let our whole future depend upon being able to get vanadium steel. We have worked out a substitute. All our steels are special, but for every one of them we have at least one, and sometimes several, fully proved and tested substitutes. And so on through all of our materials and likewise with our parts. In the beginning we made very few of our parts and none of our motors. Now we make all our motors and most of our parts, because we find it cheaper to do so. But also we aim to make some of every part so that we cannot be caught in any market emergency or be crippled by some outside manufacturer being unable to fill his orders.¹

VII THE CASE FOR THE STATISTICAL METHOD

A question which a business man will ask is why the statistical method is emphasized. If his impression is that it is proposed that purely mathematical methods are to replace the exercise of judgment, experience, and current knowledge, it is in error. In urging statistical methods and research it is not intended to decrease the emphasis on imagination, judgment, and the other qualities of an executive which play a part in the successful conduct of business. It is assumed that the management will apply every bit of caution and intuition as heretofore, and will be guided by the evidence of statistical researches only when supported by other controlling considerations.

The statistical method is important because it usually gives

¹ Henry Ford, *My Life and Work* (New York, 1922), p. 18.

the truest information. It deals with averages and with facts in large numbers. The business man who relies on his experience and observations alone may make a wrong decision because dramatic examples, standing out in his mind disproportionate to their numerical importance, may lead him to a faulty induction. Or he may not make any induction at all because the facts which would attract his attention are revealed only through detailed analysis. Statistical method, with its ratio charts and correlation, is constantly showing its serviceability in displaying significant relationships. Through statistical analysis the Eastman Kodak Company found that in the case of one important product, a twelve months' moving average line of the total sales over a number of years (1905-17) when plotted on a ratio chart was practically a straight line—a fact of particular importance in estimating sales in advance. This would not easily have been demonstrated otherwise.¹

It is not to be expected that the research method will at once prove of practical use. Failure to persist will be more often productive of failures in research than any other cause. The ultimate test of the work should be, "How much better off would we be as a whole if we had not used the research method at all?" The disastrous results that sometimes follow the customary play of emotional feeling and optimism at certain periods of the cycle should be compared with the errors of caution. The Weather Bureau is wrong in its predictions about once in every eight times, yet how much more serviceable are its predictions as a whole than would be reliance on ordinary observations.

One excellent result of scientific, statistical research will be the interaction between "practical" business judgment and "theory." The need for an understanding of theory will tend to make more of the practical men economists, and the need for demonstrating the value of researches will make more of the economists practical. The combination is needed for the developing profession of business. Only in that way will wide progress be made in eliminating the destructive features of our periodic industrial depressions. As

¹ M. B. Folsom, "The Organization of a Statistical Department," in the *Harvard Business Review*, January, 1924, p. 186.

short a while as a decade or two ago sales research was new and limited in use. Few dared what seemed to be the ridiculous assertion that they could make accurate estimates of future demand. Today market analysis is not yet universally accepted, but the need for it and its efficacy in practice have been clearly demonstrated.

The accepted leaders among the newer type of business men have progressed furthest in adapting research to their ends. Modern business technique is creating a new kind of executive leadership. The business world is beginning to see through the kind of resourcefulness evinced by the executive who allows his organization to get into a serious situation and then shows admirable imagination and energy in pulling it out of its difficulties. Instead it demands that such difficulties, if avoidable, shall not occur at all. As an addition to the popular conception of an executive, it is putting the emphasis on intelligent foresight. Statistical studies will aid in building up precedents that will give true standards for determining policy and thus increase the body of principles upon which executives should base their decisions.

VIII THE ORGANIZATION OF RESEARCH

The increasing subdivision of the laborer's craft in the interest of specialization has had its counterpart in the increasing specialization of managerial activity. Advertisements are written by advertising managers, purchases are made by purchasing agents, employees are hired by employment managers, and various other duties are performed by specialized executives. Research, however, has usually been regarded as incidental to the work of the executive, the assumption being that any brainy man knew where to get the facts he wanted. Some one in the firm or some outside source may have been called upon to supply the information, but this was merely an expedient for meeting a pressing problem. That research is a necessary, organized and continuous service required for administrative control has been appreciated only recently and by comparatively few firms.

The older type of incidental research had many defects. It was discontinuous and, therefore, disjointed and unsystematic. It often was invoked too late to anticipate a situa-

tion of growing seriousness. It was conducted by persons not specifically trained for such work. The special handicap of being carried on only as a by-product to other duties, by an executive or other employee already burdened with numerous other cares, made it less intensive than proper research demands.

Distribution research is so basic a tool in the control of demand that in the larger organizations it should be given a significant place. Men or women with economic and statistical training, qualified by temperament and ability, should be assigned to this work, whether they are already in the organization or need to be secured from the outside. The question as to what part of the organization chart the research bureau or executive should occupy need be gone into here in only this particular; the research should be in such relation to the chief executive that the findings will play a significant part in influencing major decisions of administrative control. In a number of firms (*viz.*, Kodak, Walworth, and others) the research executive is a special assistant to the President, and this seems a favorable location. What is needed primarily, however, is the conviction on the part of at least the main officials of the firm that progress is unsafe without the light of scientific research. When this exists, the exact title of the bureau or under whom it is laid out on the organization chart is a matter depending on personalities in the plant.

Such studies must tie up directly with the daily activities of a business. Too great refinements of statistical method should be avoided, certainly at first. Correlations and other interesting results that statistical analysis may yield will be pursued by very few business men unless they can serve as an aid in determining when to buy, how much to produce, or in answering some other practical question. Estimates with regard to the future must have a sound basis of probability and be right a sufficient number of times to make them actual working guides, even though not infallible ones. The studies must in time demonstrate their ability to yield a profit above the cost of the research work. Lest it be thought statistical research requires a heavy overhead expense, it should be made clear that only in the larger orzani-

zations is a large staff required. One man may suffice. In the Walworth Company the present staff engaged in important sales analysis consists of only three persons.

The most enduring results will be secured if the facts are presented in as simple and clear a manner as possible and this information not kept within an inner circle at headquarters. The sales managers, the sales force, and all others concerned should, within reasonable limits, know what is being done, how and why, so that the same habits of thought which distinguish the scientific method will be inculcated in them. This implies, from the standpoint of sales management, full circulation of the research findings in popular writeups, conferences of sales managers, and other educational devices.

Especially important is the element of time. One sales executive stresses the point that:

Too many of us wait until the year is over and then get a lot of statistics that enable us to figure out all the mistakes we have made. If we could have a system where we would get this information like a daily newspaper and know where we are traveling, we would take corrective steps in time.¹

The equivalent of a daily newspaper is actually supplied to the executives by the research departments of the Walworth Company and the Dennison Company, in the form of daily reports of significant facts and comparisons, aside from those provided, weekly, monthly, and quarterly.

In this way the executives are encouraged to shape their policy in accordance with the actual needs from day to day. When orders in any main line show a tendency to fall off, this condition is at once perceived and the measures necessary to improve the situation can be initiated. Thus does distribution research present the opportunity for substantial distribution control, and in turn for planned production.²

¹ P. C. Staubach, in the *Bulletin of the Taylor Society*, October, 1920, p. 227.

² While our main interest here in statistical control is regularized employment, many other advantages flow from the use of this scientific method. See, for example, M. C. Rorty's, "The Statistical Control of Business Activities," in the *Harvard Business Review*, January, 1923, pp. 154-166.

CHAPTER VI

DIVERSIFYING THE OUTPUT

I SPECIALIZATION OF OUTPUT A CAUSE OF SEASONAL OPERATION

AN American humorist, "F. P. A.," who edits a column daily in the New York morning *World*, had occasion some years ago to comment on the feelings of the "ticket-choppers" of the New York subway system concerning the installation of the new nickel slot machines. These machines had done away with the need of purchasing tickets and dropping them into the ticket-chopper. F. P. A. mused: how must the poor ticket-chopper feel when, after having spent ten or twenty years in "perfecting himself in his chosen profession," he sees his craft swept away by a new invention? This type of witticism could be directed at a host of firms in the industrial world today who insist on saying, "This is my line," and even in the face of sober adversities refuse to give adequate study to the possibilities and the advantages of rounding out their products.

Many firms do not manufacture a full line of their own product and thus are themselves responsible for putting manufacture on a distinctly seasonal basis. This condition may be illustrated by reference to a government report of a few years ago on the tin can and box industry. This industry showed a tendency to localize itself where the product to be packed in the cans was made. In one factory cans used for fish and oysters were the chief products, while in another, cans for lard and meats constituted the main line. As a consequence, the regularity of work varied widely. One plant, situated in a great fruit and vegetable packing state and working on a seasonal basis, usually began work with a full force of 1,200 men, women, and children, working sixty

hours per week for several months. At the end of August, or perhaps at the end of September, the force was suddenly reduced to as few as 100 employees. In the same state, however, another establishment turning out a general line of goods reported no busy season, except for occasional overtime. A third plant, in another state, had a peak load opposite to the first firm mentioned, since the demand for maple-sugar tins, to which it catered, gave it a busy production season during the late winter.¹

Specialization of output has numerous advantages if a firm's sales permit continuous work. But if the factories are idle part of the year because the products made cannot be produced otherwise than on a peak-load basis, the losses in charges for equipment and overhead during the idle periods are likely to make the temporary specialization in the rush season more costly. When specialization makes continuous production impossible, the policy of diversifying the output should, therefore, be given the most serious consideration.

One of the great advantages of manufacturing a diversity of products is to bring greater financial stability to a business. The firm does not have to depend for existence on the popularity of a single product. The principle of diversifying output thus has advantages similar to the generally recognized advantages of diversifying holdings when making investments. Thomas A. Edison, in urging that businesses of a seasonal character should diversify their products, recently stated:

I have found this diversification of utmost value. . . . We make a number of absolutely different products—storage batteries, phonographs of various kinds, single batteries, numbering machines, and Portland cement. In 1920 we had \$6,000,000 worth of orders canceled and the cold shivers ran down my spine; but all the lines did not go bad at once. Enough kept up to carry us through without harm.²

As the following discussion will show, the addition of a side-line to fill out production is not nearly so simple as it appears. Many practical problems are involved. There are

¹ United States. *Report on Conditions of Woman and Child Wage-earners in the United States* (Washington, 1913), vol. xviii, pp. 57–58.

² *System*, September, 1923, p. 330.

conditions, notably in the clothing trade, that sometimes make the introduction of a filler an expedient of doubtful value. But the worst obstacle is inertia. The idea of specialization is so firmly intrenched in the minds of many of the employers that they have never given the possibility of adding a side-line serious thought. Yet they advance arguments galore to show that it is utterly impractical. It is here, indeed, that a philosopher's comment fits: "Most of our so-called reasoning consists in finding arguments for going on believing as we already do."¹

II SOME ADVANTAGES OF DIVERSIFYING OUTPUT

Among the advantages of diversification of output already touched upon are greater financial stability and greater continuity of operation. The degree of continuity achieved depends, of course, upon the consideration given to the dovetailing of seasonal production when selecting new products. Among other advantages of diversification are the following:

(a) Minimum Production Costs.—If diversification of products is accomplished in such a manner that the new products become thoroughly integrated into a continuous manufacturing program, fixed charges and other overhead costs will be reduced to the minimum. The losses of a high labor turnover caused by unsteady work could also be reduced, **decreasing labor cost.**

(b) Less Frequent Resort to Borrowing.—Instead of having to wait many months until the seasonal peak at which bills are paid, a diversified company would have peaks of payments come so much more frequently that it would have fewer occasions to resort to borrowing.

(c) Reduction of Selling Costs.—Salesmen in many lines are idle much of the year in order to be on hand for the campaigns at the limited selling seasons. If they could sell the more diversified line, their trips would be more intensive or frequent, their routing shorter, and their volume of sales per customer higher. Customers might be retained who, in

¹ James Harvey Robinson, *Mind in the Making* (New York, 1921), p. 41.

order to purchase the items sold by some other dealer, often prefer a manufacturer who cannot offer them a full line.

(d) Lower Packing and Shipping Expense.—Orders shipped would be larger and the greater number of customers would allow for the advantages of combined shipments.

(e) Better Use of By-products and Scrap.—Diversification of lines may sometimes be based on the need for using to the fullest the leavings of the main line. A number of side-lines of the packing industry represent merely the efficient use of what would otherwise be waste. "Old Dutch Cleanser" is made from a former by-product. The Miller Lock Company added almost a score of specialties made of metal scrap from the factory, raw and finished. Until the adoption of these side-lines, this scrap metal was regarded as unavoidable waste.¹

(f) The Greater Variety of Work Breaks Shop Monotony.—A factory which is too specialized reduces too much of the work to a routine kind, dulling interest for workers and executives alike. Various firms which have introduced new lines have observed the pleasing results secured from the interest in the new product. That is one of the results reported by the president of the Miller Lock Company.²

III PRACTICAL ASPECTS OF DIVERSIFICATION

How practicable is this policy of diversification? Against the advantages enumerated are disadvantages and obstacles which make the diversification of products a matter of balancing various costs. These problems depend upon the extent to which diversification is carried on, the kinds of products added, the method by which goods are distributed, and other factors. They will therefore be taken up in accordance with the kind of diversification practiced.

For purposes of discussion, the author has classified the diversification of products into three types, *viz.*:

1 Slight modifications of the main line, to open up new markets and demands.

¹ *Factory*, October, 1921, p. 470.

² *Ibid.*, p. 470.

2 Addition of side-lines or "fillers," representing one or several new items added solely to bridge the gap in production which anticipated manufacture cannot solve.

3 The complete diversification of output, involving extensions of the line to a large number of different items.

1 Slight Modifications of the Main Line

If a factory is unable to operate continuously on a single product, and must add other products, it should try to give up as few as possible of the advantages of specialization in production. If the possibility exists that some slight variation in a product will make it fit for a wholly different use, create a new demand, and help to balance sales, that is the road to seek. Attention to the problem often makes it possible for a firm to depart only slightly from specialization of production in the factory while diversifying its output to the public.

Such development of new forms of the same product should not be confused with the education of the consumer to make more varied use of identically the same product—a form of advertising which is discussed, among other expedients, in a later chapter on sales policies which affect continuity of employment. For if through such advertising or through any other method it is possible to regularize demand, diversifying the output may be unnecessary. In approaching the problem of diversification we are, therefore, assuming that the demand is uncontrollable through other efforts, and that some addition to the line has become necessary.

The ease with which a wholly new item may sometimes be produced from the customary product may be illustrated by several striking instances. Phonograph manufacturers who could not sell large machines in summer have found a lucrative business in devising small portable ones. For years a firm manufactured only soft woolen felts used in continuous belting in paper mills to carry the pulp from machine to machine. An immensely valuable market was overlooked. It was largely through accident, it is said, that the company was led to cut its felts for blankets. "Practically all that it had to do in entering the manufacture of fine blankets," we

are told, "was to cut its soft, ivory-white pure wool felt into the right sizes for full beds and half beds and whip the worsted, or bind with satin the cut ends. It was ready at once to compete with the finest blankets in the market."¹

The "handy boxes" sold by the Dennison Manufacturing Company are good examples of diversification without loss of specialization. Although most persons could use rubber bands, clips, tags, and other desk aids at their homes, an ordinary box of clips, labels, or of rubber bands is not likely to be given as a gift. The company made up a well-chosen selection of various types of things ordinarily found useful on the writing desk of even a lady of fashion, and putting these supplies in an artistic box, created a distinctly new item for the catalogue which involved little that was new or disturbing in production. Similarly, neat boxes containing a number of sticks of sealing wax of different colors, along with candles and holder with which to heat the wax, have added an article of merit to the list of possible gifts.

The development of summer sweaters is an example of diversification of line requiring little change in machinery, technique, or method of production. Sweaters were formerly associated with cold winter days, and sweater manufacturers vied with one another in producing big and warm rolling collars and heavy garments generally. Only a few years ago, through influences that are not entirely clear, but which are attributed in part to certain manufacturers of wool yarn, a loose, open-knitted jacket made its appearance. Sweaters in the form of waists came to be worn generally in summer as well as in winter. With a similar idea in mind for men, the Swansdown Knitting Company projected a loose, light-weight knitted jacket known as the Thermo Sport Coat.²

2 *Side-lines and "Fillers"*

In some cases, however much intelligence is applied to the problem, it would be impossible to devise a new product as

¹ *Printers' Ink*, September 15, 1921, p. 98. The firm later added a full line of blankets, coverlets, motor lap robes, and also woolen half-hose and golf stockings for men.

² *Printers' Ink*, January 20, 1921, p. 95.

closely related to the main line as the instances discussed. It then becomes necessary to consider a "filler" or side-line to fill up the gap in production. A homely illustration is the combination of the coal and ice business in many localities.

The manufacturers who have not adopted "fillers" have frequently voiced objections against them on the ground that they interfere with some one else's line; that the practice amounts to unloading or dumping goods to the discomfiture of those "legitimately" engaged in a field, and that it is cutthroat competition at best. Comments concerning the production of fillers sometimes give the impression that the practice is a reprehensible trick which would redound to no one's credit or advantage.

Not the least of the considerations is the apprehension that such fill-in work will only serve to "tempt the other manufacturer into my own line." That the adoption by a manufacturer of a seasonal filler might lead the manufacturer of the filler to consider adopting a side-line which would compete with the first manufacturer's business is a possibility. But although this is a condition which the business man might not like, from an economic and social point of view this might serve a most useful purpose in the long run. Each of the manufacturers who have adopted side-lines that regularize their businesses might thus be able to operate at a lower cost, and the less specialized nature of these business firms will make for much smaller fluctuations in employment.

Part of the criticism as to the nature of the competition is due to present practices. The manufacturer who faces the huge charges for plant and overhead because of seasonal slack is the more likely to be willing to underbid others in their regular lines. The more widespread adoption of fillers as permanent and regular lines will tend to equalize conditions and thus to obviate such haphazard competition.

The reed, rattan, and fiber industry presents an excellent example of how subordinate lines of manufacture have been adopted in attempts to overcome irregularities in production caused by seasonal demands. When the industry was first started, chairs were about the only product made. It soon became evident that, because of style changes, the summer

chairs would be ordered largely in the months of March, April, and May, and the winter chairs in September, October, and November. To overcome this the manufacture of settees, tables, lamps, and other articles of furniture was started to fill in the slack periods. But furniture dealers had been accustomed to ordering only in certain months, so these new lines had little effect except to increase business in the already busy months.

Following this, a more radical step was taken and the manufacture of baby carriages was begun on a large scale. This new line was partially successful in bringing about the desired effect, for the carriages were demanded mostly in February, March, April, May, and June, thus adding two more busy months to the spring season. This still left two slack periods, however—the July-August period and the December-January period. About four years ago the manufacture of doll carriages—which are really only small baby carriages—was started. Since these are small and fairly inexpensive, it was found possible to induce merchants to buy their Christmas stock several months ahead and store the goods under their own care. Thus it became possible to run the factories full time during July and August. At the present time, therefore, the only real slack season is in December and January. Since these months come just after the Christmas rush and before the spring rush, it has been, and doubtless will continue to be, difficult to find filler lines that can safely be made during this period.

The Columbia Conserve Company, in Indianapolis, has found the addition of several varieties of soups to its line an aid in its major problem of regularizing production. Canneries may be listed as among the firms with the extreme fluctuations in production and employment. In 1918, the company canned less than 7 per cent of its year pack during the first six months. By 1920 it had increased this to 20 per cent, and by 1923 to approximately 33 per cent. In part, the pressure to make production regular has come from the company's assumption of the responsibility of continuous employment for those qualifying as the regular staff. The canning of pork and beans, chile con carne, and other products, and various other methods, are in the minds of the

executives, along with the further dovetailing of work between the farm and the cannery.¹

Other interesting examples of fillers show how helpful they may prove. A window-screen manufacturer overcame six months' shut-down by taking on a line of game boards to sell to the Christmas trade.² S. L. Allen & Company, Inc., manufacturers of a full line of farm and garden implements, was early in its career faced with a marked lull in its principal products during the summer, and the need for a side-line was realized. After a series of experiments, a sled called the Flexible Flyer was evolved, which now furnishes the plant with enough business to keep the factory working approximately at capacity throughout the summer months, this side-line alone employing about 40 per cent of the factory force from March 15 until well into September.³ George W. Smith & Company, of Philadelphia, engaged in a high grade of woodworking, entered into the laminated automobile wheels business to supplement its regular line of interior wood furnishings for office buildings and churches.⁴

A toy manufacturer confined his business to toy trains, and the irregular demand made production seasonal, with gaps in the spring and in late summer. The stoppage of the supply of German toys in 1915 gave him the opportunity to add mechanical boats to his line. These sell during the entire year, with the principal demand coming from March to September, in just the months when the firm needs business most.⁵ These are typical examples. Many others have been collected, but have to be omitted for lack of space.

The factors which a firm must consider in deciding upon the adoption of a side-line "filler" can be divided into those bearing upon the production of the filler and those connected with the problem of selling it. They are stated in the form of questions.

¹ Paul H. Douglas, "A Case of Genuine Self-Government," in *The University Journal of Business* (Chicago University), February, 1923, pp. 177-178.

² William R. Basset, *When the Workmen Help You Manage* (New York, 1919), p. 144.

³ *System*, August, 1923, p. 161.

⁴ *Factory*, October, 1921, p. 468.

⁵ *Printers' Ink*, August 24, 1922, p. 146.

(a) Adjusting Production to the Filler

Are the seasons of the production of the regular line fairly definite? If so, the manufacturer knows what months of the year he may count upon for side-line work, and may consider adding a product whose production season is complementary. To find a line whose season fits is much more easily conceived than accomplished, even when the slack in production of the regular line comes at the same time every year. When it is irregular, however, a disturbing variable is introduced. If the production season of the side-line itself is also likely to be irregular—and few side-lines can be restricted to any one time of the year—a second variable must be taken into account. The kind of filler which should be striven for, therefore, is one which can be manufactured for stock at any time that the factory needs some extra work for continuous and economical operation.

Can the existing equipment be used for the production of this filler? Naturally, the side-line that will most reduce the burden of plant and equipment is one which allows for the fullest use of the existing machines, workrooms, and employees, without costly changes. Such is the advantage of the side-line adopted by the Remington Arms Company. As a result of manufacturing bayonets during the war, the firm had gathered valuable experience in treating blade steel. It then added a line of pocket knives and extended to cutlery generally. In another instance a manufacturer, who had peaks and valleys in the milk-can business, with a big seasonal demand in the spring, found he could make coal scuttles with the same machinery. His new line has now come to be as important as the original one.¹

Can such side-lines be produced without having to add special designers and special service to customers, that of themselves make for a seasonal overhead? It is not always possible for the regular staff to take on the side-line work. In the garment trades, the slack time is occupied largely in studying and devising new samples, in manufacturing "duplicates" for the salesmen, and in numerous other ways—a

¹ *Printers' Ink*, May 18, 1922, p. 207.

factor that makes the employer extremely loath to add the burden of another line to his cares.

Can the employees be taught to do the work with sufficient skill to make it possible to use practically the regular labor force? A government report tells of two Chicago dress and waist establishments which added the manufacture of petticoats. But the purpose here was rather to avoid idle time for the equipment than irregular employment for the workers. The employers did not believe that the workers were interchangeable and only a limited number of the dress and waist operators were used on petticoats during the dull season in the dress and waist line.¹ It is therefore obvious that the mere addition of a line does not necessarily have the effect of providing greater security of work unless special plans for using the same labor force are put into effect.

How much side-line business shall be accepted? What shall be done when the demand for a side-line with a seasonal peak far exceeds the amount the factory needs to fill out its production? Where a firm works on a side-line at cost or at a loss, merely to gain the advantages accruing from continuous production, there is little danger that it will take on more business than it needs. But permanent side-lines are quite likely to become profitable lines, and the demand for them may become hard to restrain. In such a case the side-line itself may become the cause of a seasonal peak, defeating the purpose for which it was evolved.

The way in which the possibilities of overbalanced side-lines will often have to be met is on the dietary principle discussed in Chapter IX. But it may also be said that it may be good management to allow the side-line to take first place and then develop supplementary lines to it.

(b) Factors in Marketing Fillers

How will the side-line be marketed? This is a greater difficulty than any problem arising from the production of the side-line in the plant. If assurance of distribution of the side-line were to be given, many factories would be glad to take on side-lines at a very low profit, or at a cost basis.

¹ *Regularity of Employment in the Women's Ready-to-Wear Garment Industries*, U. S. Department of Labor, Bulletin, 183, 1916, p. 98.

A side-line may be easy to manufacture, but sells to a wholly different group of dealers. The house has no reputation in the line; there is no reason, to be sure, that its output will be of the proper specifications or style, or the service in connection with it adequate. The firm's salesmen, moreover, have no familiarity with the new trade. It need hardly be pointed out to those familiar with business how large a part personal relationships and the reputation of a house in the trade ordinarily play in successful salesmanship today. Thus the difficulties of disposing of the side-line may be a real handicap.

The discovery that the reputation of a manufacturer in one trade is of little influence in securing sales against a competitor in another trade is said to have surprised some of the big meat-packers when they embarked in a line of groceries. Salesmen who could get orders from butchers often could not overcome the lack of training and background when they tackled grocers. New salesmen had to be added. But such a new corps of salesmen on a single line adds a seasonal overhead to the selling costs that may prove a great competitive handicap against the salesmen of competitors who sell a full line.

These difficulties often may be overcome or it may become profitable to use special salesmen in the new trade, but it is better to explore the possibilities of finding a line that sells to the same trade. Was not the problem simpler for the corset-maker who invented a special summer corset for slack-season production to sell to the same trade, than if he had undertaken a side-line for a wholly new market?

Will the filler compete with the regular line? There is danger that the customer will take less of the regular line in order to take on the filler, because he does not want to increase his usual volume of purchases. Generally speaking, the manufacturer will be very much disappointed because the total volume of business had not been appreciably increased by the introduction of the new line. To avoid this, the side-line must be carefully analyzed to determine whether it will lead to a permanent expansion of business.

Can the filler eventually be made a regular line? Successful relations with customers cannot, in most trades, be main-

tained by purely casual contacts. Dealers will want more or less continuous service which may extend even to the mid-season of the manufacturer's regular line. Advertising may have to be engaged in on an all-year-round basis in order for the firm to hold its own during the buying season. These and the many other difficulties indicate that a firm cannot, with advantage, adopt some side-line temporarily. If a firm took a new side-line each season it would lose all the cumulative advantages of building up a reputation, of establishing oneself in the trade. That error, indeed, has been the characteristic fault of those manufacturers who claim the adoption of side-lines is impractical and say, with an air of finality, "Yes, I tried to work on a filler one season, but the thing wouldn't go, so I gave up the idea."

Business men who have successfully introduced fillers, therefore, are unanimous in their belief that side-lines must be conceived as permanent additions to the regular line. In fact, the term "fillers" as applied to any item is soon resented, although the firms admit, in private, what it was that prompted them to add the product. Items which were devised largely for the purpose of aiding continuous production soon attain as honorable a place in business as any other product. When the side-lines become regular lines they usually add profits to the business. Long-range schemes for dovetailing production between departments and for training workers for transfer between them become worth while, and thus give the opportunity for complete regularization.

The special problems of finding a suitable filler in industries involving style changes are treated separately at the end of the chapter, covering the experience of several manufacturers of men's and women's clothing.

3 The Complete Diversification of Output

The fullest advantages hoped for from the diversification of output can hardly be expected from a number of lines as limited as in most of the instances recorded. Just as utmost certainty and stability in investment cannot be assured by the purchase of only two or three kinds of bonds, utmost stability of a business would, from the point of view of

diversification, require a fairly large and varied range of lines. Even if each of these were seasonal, their peaks can be planned to come at different times of the year and thus tend to balance one another.

The efficacy of diversification in reducing seasonality is indicated, for example, by the history of the cycle industry, which is probably unique as regards the enormous influence of the weather in determining the volume of business at any time. But the leading firms developed a wider range of activity, manufacturing also motor cycles, roller skates, carriers, and automobiles, and some include sewing machines and typewriters. Thus they are able to give more openings for the maintenance of a regular staff of capable workers.¹

An exceptionally interesting instance that shows the value of diversification of lines when coupled with excellence of management is the Winchester Arms Company, of New Haven, Conn. In this case the end of the World War is said to have found the company with a plant four times as large as that in 1914 and capable of making five times as many rifles as the annual purchase of the whole world before the war. The choice was either to scrap the additional equipment or to put it to use in manufacturing new products. There was also the choice between going back to a personnel of about 7,000, to which peace had reduced the plant, or remaining at around 22,500, as at the close of the war.

Although started in the Civil War period, the Winchester Arms Company had confined itself to rifles, small arms, and ammunition. It was not until under the leadership of J. E. Otterson, now the president, that confidential investigations were begun in 1918 as to new market possibilities, and these investigations were followed up by intensive analyses of particular fields, in which the research departments of some important advertising agencies aided. After careful preparations complete plans for diversification of product were launched.

The first group added was a complete line of steel cutlery, including pocket knives, scissors and shears, razors, carving sets, kitchen cutlery, butcher's cutlery, camp cutlery, etc.

¹ Sidney Webb and Arnold Freeman, editors, *Seasonal Trades* (London, 1912), pp. 113, 136.

To enable the firm to start production, two small factories were purchased. In contrast with the method of expansion of the United States Rubber Company, soon to be discussed, the excess of plant capacity in New Haven was a compelling reason for the concentration of production there. The two new factories located elsewhere had been needed for their equipment, not for their space. They were therefore sold. The desire to use the New Haven factories to capacity thus proved an unusually favorable circumstance in making diversification of output provide a basis for the use of an existing labor force. The company has made a detailed study of all the good points of existing products. Particularly it has directed its attention to the consumer's experience to determine what improvements to make. That its research was thorough is attested by the firm's success against its chief competitors in the new line.

With the same thoroughness, the availability of other products had been investigated. Soon flashlights and batteries were added, after many improvements were instituted in them. Roller skates and ice skates became the next new product. Then the manufacture of fishing tackle was undertaken, and part of the war plant now houses perhaps the largest fishing tackle factories in the country. Attention had also been directed to improvements and innovations in tools, and a complete line of carpenter's equipment further assisted in cutting down idle space in the plant. Athletic goods were then also made part of the line, but only a few items are manufactured, the rest being bought. The number of products already made allow for complete elimination of seasonal slack.

This diversification of products was accompanied by distribution engineering and sales operation of high order. Mention of these is made in various sections. The effect of the Winchester distribution technique, as well as other elements in the situation, provided very severe competition in the trade. The largest rival, manufacturing what until recently, at least, was considered to be the best line of cutlery and tools in the United States, was the Simmons Hardware Company, makers of the "Keen Kutter" brand. This old and well-known firm was merged with the Winchester Com-

pany, which became the Winchester-Simmons Company. The diversification of output of the latter was thus greatly extended because the many plants in the Simmons group included harness and saddle factories, two paint factories, automobile-engine factories, and facilities for other products. The adoption of new lines came just before the depression of 1920 and 1921, and, therefore, the fullest benefits were not at once attained. The policy has, however, shown itself highly profitable.

By the adoption of side-lines as needed from time to time and by constant attention to the opportunities for origination, the number of items found in the catalogues has made seasonal variations of much less consequence to the Dennison Company. Broadly grouped, there are such different items as crêpe paper, glue, sealing wax, hand-made velvet and satin jewelry boxes, machine-made paper boxes, wire clips and printed goods, but subdivided in more detail there are over 8,000 different items, including hundreds of paper novelties for holiday use, hundreds of types of desk accessories, a large variety of printed labels and tags, and many different kinds of boxes.

The International Harvester Company, of Chicago, presents another example of a diversified industry. About two decades ago it made mainly binders, mowers, reapers, and cornbinders, for use during the harvesting season only. Its production was confined to not more than nine months during the year, with a peak load, and the seasonal shutdown and slack was customary in the industry. But since the overhead in this industry is very high, the advantages of filling in the gap were seen. Threshers were added to the line, for the farmer uses these later in the season, and then shredders, which are used still later. Knife grinders, trucks, tractors, and other products were added until now over fifty classes of machines are made.

The company operates a widely diversified group of industries, including iron mines, coal mines, coke plants, timber lands, sawmills, steel mills, twine mills, tractor works, truck works, paint shops, etc., and its miscellaneous activities include the manufacture of truck bodies and the operation of boats on the Great Lakes. Coupled with this diversification

is excellent managerial direction and a keen realization of the need for continuous operation. But the fact that about 40 per cent of this company's products were sold in the export trade in the past has made the present condition of the foreign countries a disturbing factor in its business. Moreover, crop conditions all over the world have a determining influence on sales.

In spite of the handicaps, considerable effort has been made to provide steady work. The payrolls in the principal plants show much smaller variations from month to month than would be expected in such a business. In the Deering Works, making a diversified line including mowers, binders, and reapers, the number on the payroll in 1923 varied from a minimum of 3,395 in January to a maximum of 3,895 in September; in the McCormick plant from 4,037 in April to 4,768 in December. These fluctuations are considerable, yet are less than they would be on a more restricted line. But the emphasis has been more largely on keeping the factories under continuous operation than upon keeping the same workers employed. To have the latter objective is an essential of regularization, for, it has been pointed out, a factory may have a constant number on the payroll and yet have many seasonal substitutions of workers.

The United States Rubber Company offers an example of an almost unlimited line, but a greatly restricted opportunity for the application of the technique of regularization of employment. This huge firm sells almost everything that is made of rubber, as well as products made of rubber compounds. The company manufactures tires and tubes for automobiles, trucks, etc., boots, rubber heels, mechanical rubber goods, drug sundries, raincoats, auto coats, fishing shirts, gabardines, bathing caps, life-preserver suits, firemen's hats, chemicals of various kinds, bicycle accessories, airplane fabrics, rubber hose, mats, poker chips, tennis balls, rubber dolls and other items too numerous to mention. More than 10,000 different products are included in the line.

Many influences which affect some products adversely are likely to affect others favorably. Thus, weather is an important factor in the rubber industry. If a winter is cold and wet, rubber shoes and clothing sell very heavily, while

if it is dry and not too warm, the roads are in good condition for driving. More tires and tubes will be bought, and auto coats may sell where raincoats do not. The effect of the weather is thus partially neutralized. The opportunities of versatile distribution engineering in this company would, therefore, be exceptional. If reinforced by good production planning and systematic transfer of employees, the elimination of most of the ordinary causes of irregularity of work would seem possible.

But the actual facts of the situation are that the company's plants are not located conveniently for the varied use of the labor force. There are about forty large plants in various parts of the country. The firm's expansion into new lines had been carried on largely on the principle of buying out plants engaged in manufacturing rubber products, so that the location of the factories was to a large extent predetermined. Were these plants grouped within a few producing districts, much would be possible that is not under the actual conditions. The biggest tire factory is in Detroit, while the principal footwear plants are in New England. In Factory No. 1, located in East Cambridge, Mass., only rubbers, raincoats, and certain specialties are manufactured. Other plants are similarly specialized. Thus the diversified output of the firm is not as important a factor in regularization as it might be.

IV FILLERS IN THE CLOTHING TRADE

The style-bound industries suffer most from fluctuations of demand, and when a filler for production during the slack season is available, it is nothing short of a godsend. It may not allow for complete regularization, but it is certain to improve the situation. A government report of several years ago records the reduction of the slack season by the addition of more varied lines:

Some of the large firms have sought to solve the seasonal problem by widening their field and adding a tailoring department. "We have an increasingly shorter dull season in the winter because of our tailored-suit department," said one large

employer. "The tailored suits necessitate waists to go with them and provide work for the dressmaking department." The pay-rolls of these shops show frequent instances where the mediocre worker, finisher, or helper is transferred from one department to another as the season progresses, thus lengthening her working season considerably.¹

Unfortunately, it is in just such industries that the introduction of fillers presents the most complexities. These can best be explained by a recital of the experience, successful and otherwise, resulting from the valiant efforts of some of the more progressive clothing manufacturers to introduce fillers suitable for their purposes.

1 *The Women's Garment Industry*

The chief obstacle in the use of fillers in style-bound industries is the extreme difficulty of finding a staple filler. Such must also be suitable for the kind of production carried on by the firm and in the channels with which its salesmen are familiar. In 1913, a large Cleveland firm manufacturing women's clothing took on summer wash skirts as fillers. The item proved excellent for the company's purpose, and the usual lay-off during the spring was almost entirely eliminated. During one season 60,000 of such wash skirts were made and sold at a profit. But when the company had become thoroughly accustomed to their manufacture and had integrated their production, the style suddenly changed to silk skirts. Several years later the style changed from summer skirts to summer dresses, so that wash skirts lost their market completely and none at all were manufactured by the company.

That is why few of the side-lines undertaken by garment manufacturers have become permanent fillers. When the Cleveland garment company had worked out standards for the manufacture of wash skirts—a product selling at about two dollars, the same workers could hardly be considered as trained to work on silk skirts selling at about six times that much. To train workers on new kinds of fillers each year

¹ May Allinson, *Dressmaking as a Trade for Women in Massachusetts*, Bulletin 193 of the U. S. Department of Labor, 1916, p. 103.

is a great disadvantage. A side-line that is temporary rarely yields a profit. The increasing benefits which should accrue from the promotion of a product over a long period cannot be secured when the side-line may prove only the style of a season. Here and there an exception is found of a firm which has found a permanent filler. The Henry A. Dix & Sons Company, with three factories in New Jersey, which came to public attention recently because the firm was turned over to the employees by the owner, found nurses' uniforms a staple filler in between seasons for its regular lines of cotton porch and house dresses.¹

This instance is not a typical one as to the opportunities, because of the lesser importance of style in this firm's line and the smaller variety of material used. A manufacturer of cloaks and suits might not have been able to use the idea of the Dix Company, for there are differences in equipment between the branches of the trade which the outside observer may not see. The facilities of a manufacturer of light-weight products, such as nightgowns or petticoats, are likely to be high-powered sewing machines, lightning-like in their rapidity, and whirring off seams in a much shorter time than the ordinary machines used in the clothing trade by a high-grade manufacturer. The workers of the petticoat manufacturer may be much more dexterous and efficient on the side-line because it is their specialty. Perhaps they are working on a lower wage scale as well. A garment manufacturer, therefore, may find that, although he is willing to work on a filler on a production-cost basis, he is underbid by the competitor to whom the filler is a regular line, who works only seasonally and who must make a profit.

The efforts of a well-known firm are of interest. For a few seasons this concern has been manufacturing some models of a fairly stable type of coats for school girls. These children's coats have helped in filling out slack seasons, but constitute not more than about 5 per cent of the total production of the firm. This product is priced on what the firm calls an "extra-production basis," which leaves out indirect selling expenses and some overhead charges. Another side-

¹ Jean A. Flexner, "Stabilized Employment in a Garment Factory," in the *American Labor Legislation Review*, June, 1924, pp. 133-134.

line secured by the firm and sold on the same cost basis is as near the ideal "filler" as one could conceive under the conditions. This was the manufacture of uniforms for girl scouts officers. The orders were received from the Girl Scouts Organization as such, and the uniforms were of a distinctly standardized sort. The orders in lots of 500 made heavy cuttings and the most economical production possible. Since sold to the official organization, they represented no distribution problem.

A good many manufacturers would be willing to take on side-line work during the slack season on terms involving no profit and even without customary overhead costs, if they could secure orders of that kind, for they would be relieved of the danger of guessing wrong on the style. On their own accord, without orders in sight, they are reluctant to do so. How can such advance orders be secured?

The mail-order houses, chain stores, and the large department stores have been thought to offer some hope. For several reasons these are not as promising an outlet as is believed. There are complicating factors. The manufacturer who sells his product through small retail dealers may lose the good will of these customers if they learn that he is working for the mail-order houses or the chain stores—their worst competitors. It would be charged that the manufacturer was making his profit from the small retailer in order to produce at cost or at a loss for the large out-of-town distributor. Some manufacturers who are now working for large distributors are quite apprehensive of the possible consequences, and therefore are very secretive about their contracts.

Nevertheless, many manufacturers have tried to get and some have received orders from mail-order houses to fill in slack seasons. But it seems to be the almost universal experience of the clothing trade that these retail outlets offer terms such as even sweatshops have difficulty in meeting. It is claimed that the buyers of the mail-order houses seek out firms which are desperately in need of orders and induce them to work for less than cost. Estimates by reliable manufacturers only help these buyers to secure lower bids. It is charged that many of these large distributors, as well as the

jobbers, are largely responsible for the spread of the sweatshop method of production in the garment trade.

It does not seem that the filling up of the slack seasons in the women's garment industry can, at present, be divorced from the style problem. Floersheimer & Salkin, manufacturers of women's dresses, recognizing the importance of continuous production in their business and for their workers, got rid of their summer slump by the device of manufacturing in quantity certain favorite styles for summer sales at a price which omitted the usual addition for commissions to salesmen and other expenses. By this device and by other elements of good management a member of the firm was able to report:

Our precautions to fill in between seasons have enabled us gradually to raise the percentage of employees whom we retain all summer. That percentage, 20 per cent, 40 per cent, 50 per cent, in former years, has now mounted to between 80 per cent and 90 per cent. We intend that it shall go higher.¹

The device of filling in the end of a season by making some of the best models at a lower price for special sales has frequently been used by other firms. But such a policy also has elements which make it dangerous to the manufacturer. It offers the dealer a reason for not ordering his season's requirements as far ahead as he might and to wait until the middle of the season for goods at cut-rate prices.

(a) A Suggested Plan of Cooperative Production of Fillers

Mr. Fred. C. Butler, manager of the Cleveland Garment Manufacturers Association, in his efforts to find a solution of the problem of seasonal manufacture, has proposed a plan for combined effort by the market as a whole. If this proposal were put into effect, the Cleveland Garment Manufacturers Association, through duly appointed officers, or through Mr. Butler, would undertake to act as jobbers for a special line of garments. The members would first let Mr. Butler know what piece goods they had left, and a committee

¹ *System*, June, 1923, pp. 775-777.

appointed to buy what could be used would appraise these goods at a much reduced inventory value. A style committee of the best experts in the association would ask each manufacturer to send his three best models, and the nine best styles in the market would be chosen. Only these nine models, without variations, would be produced, the central officer choosing the factory for each style.

These garments would be offered at cost, with no ordinary overhead charges, and the merchandise sold on a basis representing the loss due to the reduced inventory values. However, extra overhead charges resulting from the administration of this plan would be included in the price. The workers would be asked to agree on piece rates which would net them only a minimum living wage. Furthermore, to dispose of the products under these favorable conditions, only the supersalesmen from the few big houses would be commanded and their united effort used to advantage.

This plan has valuable elements. The idea of commandeering a few of the best salesmen to sell the combined output of the market presents a striking contrast with the customary wasteful competitive selling methods. Even during a period of serious depression in their trade, salesmen from half a dozen different Cleveland firms manufacturing the same grade of product have sometimes found themselves registered at the same time in the one hotel of a small town, whose garment stores could hardly supply orders to satisfy more than one of them. The sales charges alone under the method suggested would, therefore, be much less, aside from the savings due to the elimination of other wastes.

On the other hand, many difficulties would have to be overcome. The seasons of the garment factories even in the one city of Cleveland are not absolutely simultaneous. If a schedule were set up requiring assistance from each factory at a stipulated time, a sudden rush in business might make some of the firms want to postpone their cooperation to some other time, and friction would result. But such practical difficulties are not as fundamental as the character and temperament of the manufacturers themselves. Any such plan requires a degree of cooperation which cannot be hoped

for even in the Cleveland market, whose garment manufacturers have a reputation for progressiveness and willingness to work together. In other cities as, for instance, New York, the specially disorganized conditions would give little hope that such a plan could be put into effect.

Manufacturers who have introduced "fillers" or other work to keep the factory going have asked the unions in their trades to permit work on these products at lower rates. This kind of cooperation is due to the considerate employer. From a practical standpoint, however, the manufacturer who wishes to reduce his cost on fillers should put his attention on other possible savings before trying to reduce wage rates paid on such side-line work. In one market it was suggested that the men relinquish the extra pay for work above the required minimum output. But the cutting out of extra rewards for special effort may have the effect of cutting down production rather than reducing labor cost, so that it may be best not to interfere with the incentives to added effort.

It might be suggested that the base rate be changed. This was the thought in the plan of a market filler for the Cleveland garment trade. The response of Mr. Meyer Perlstein, the then local union manager, is interesting and has much force. He was most emphatic that the union would tolerate no "monkeying with the minimum" because it had taken so many years to win it, and to tamper with it would imperil unionism. He feared the psychological effect on the employer of a reduction that lasted even for a few weeks, for this would suggest the possibilities of making the rate permanent by defeating unionism. Mr. Perlstein also feared that by working at a lower rate on a filler which was the regular line of some other trade, the workers would undermine the labor conditions for the wage earners of that other trade. Therefore, some entirely new product on which others are not employed would have to be evolved before a very low rate could become a basis of discussion. Furthermore, he claimed that the minimum itself was too low, and not above the minimum of subsistence.

Professor Commons' discussions are in support of this reasoning. He states:

Sometimes it is thought that the workman feels it to be beneath his dignity to work for less in the dull season than the standard scale in the busy season. This is a first impression. Back of it is experience and competition. In order to bring about a return to the higher rate of wages when the good season returns, all competitors must act substantially in unison. The wage-earner who works at the lower scale in the dull season is not in a position to insist on the higher scale in the busy season, and his employer is not likely to pay it unless a sufficient number of workers insist. And those employers who do advance to the higher scale must face the competition of those who do not.¹

Yet in several instances known to the author, unions have allowed lower wages to firms which had started new work as a filler. The established unions aid employers by making wage agreements more elastic in practice than they are usually advertised to be. In 1922, the Fashion Park Company, of Rochester, added a special shop for the manufacture of tropical suits. One of the purposes of this new shop was to give steadier employment, since the long summer season of the tropical suits was considered especially helpful in dovetailing labor requirements. To meet competition the firm asked for a lower wage scale. The union agreed to this, not only because it would aid in making employment steadier, but also on the ground that less skill was required on the new line. The reduction allowed mounted to about 20 per cent of the customary rate. The union was probably led to take the step because the depression had been so severe that it had affected unionism itself, and because the addition of the work proposed would give more employment to the members and additional membership to the union. In the Chicago clothing market, negotiations having to do with concrete efforts to increase business and employment have become matters of frequent occurrence.

A leading executive in the needle trades explained the practice in his own organization as follows: In the years when the members of the union were struggling for recognition and for collective agreements, they focused their energies upon a living wage as their major objective. Now

¹ John R. Commons, *Industrial Goodwill* (New York, 1919), pp. 68-69.

that they are established, however, they find it both to their immediate and long-term advantage to introduce a considerable degree of flexibility into the enforcement of their agreements. The union would lose by the bankruptcy of a unionized firm. If, therefore, the employer takes them into his confidence and opens his books, they help him out by differential wage rates and even advance him money in certain cases.¹

It is an interesting fact that these reductions in rates do not necessarily reduce wages, but make the wage-earners work the harder to secure their accustomed earnings. A consultant in the men's clothing industry with wide experience in wage negotiations wrote to the author:

Our experience has been that even though piece rates agreed on for new lines have anticipated a moderately lower rate of earnings than the rates on the regular lines, that had not been the result when the flow of goods was established in the factory.

We have one striking case in point in which the union went into a firm that was in serious difficulty with the express purpose of cutting to the bone in order to enable the firm to meet its competition. The rates on the previous lines were left as they were, but in spite of this the earnings on the new lines, operation for operation, have been better with the supposedly lower rates than on the old lines with the higher ones.

There are various management factors involved in this sort of experience which it is extremely difficult to analyze in general terms. Probably the two most important factors in maintaining earnings are flow of work due both to more business and improved production management, and the tendency of workers under a piece work system to direct effort, perhaps sub-consciously towards customary earnings.

2 *The Men's Clothing Industry*

Most of the problems of fillers in the women's garment industry are applicable to the men's clothing industry, but in lesser degree, for the changes in the styles of men's clothing are, of course, much less extreme. With the exception of a few firms, attempts to regularize employment through management technique cannot be said to have occu-

¹ Robert W. Bruère, "When Union Locks Horns With Union," in *The Survey*, December 1, 1924, pp. 284, 304.

pied the attention of the industry until very recently. The efforts that have been made are promising. The experience of many firms which have tried have not yet come to public attention.

Few, if any, of the plants with some success in steadying production have resorted to side-lines. The Joseph & Feiss Company uses certain serge specials, discussed in the next chapter, to fill out production whenever the factory is slack. These serge suits are staple regular models, not side-lines. The lead which the company gives is that in a style-bound industry the effort should be made to bring some stability of style to at least a few of the items, so that these may be produced during slack times. The Hickey-Freeman Company has likewise tried to keep the style elements within limits. But this subject belongs to the next chapter.

V CONCLUSIONS

The attempt has been made to consider the policy of diversifying output in its true business setting. In some instances the addition of a side-line seems so simple and obvious an expedient that it is hard to see why it was not adopted; in others, as in the clothing trades, the selection of the side-line and its integration into the business raises numerous practical problems. The difficulties involved vary according to the types of products already manufactured, the nature of the industry, the care with which the products added have been selected, and particularly on the persistence and patience shown in the matter by the management. If products of the right sort are discovered, such as stock items or goods requiring production during the factory's normal slack period, the rewards will come not only in regularized employment, but in additions to profits. For the sake of economical production as well as for security of employment, business leaders should ferret out every possibility of filling up the slack periods by integrated side-line production and not give up the hope until it is demonstrated to be an utter impossibility. Where such an attitude exists, success is much more likely than failure.

CHAPTER VII

SIMPLIFICATION AND THE STYLE PROBLEM

I EFFECT OF EXCESSIVE VARIATIONS AND STYLE HAZARDS ON EMPLOYMENT

IN THE previous chapter, specialization of products was shown to be a bar to regular operation. Here a plea is made for a reduction of diversity. This may appear inconsistent, but it is not so in fact. In the previous chapter the adoption of a more diversified number of products with *different seasons* was urged, so that the production of the various items could be dovetailed into a continuous operating schedule, whereas the concern here is with the reduction of the excessive number of varieties of the same product *having peak loads of production occurring at the same time*.

The subject is of tremendous importance because the multiplicity of variations of products in general and the extreme variations of styles in certain industries stand out as the greatest obstacles to the elimination of seasonal irregularities in employment. They are also obstacles to the mitigation of unemployment during a period of business depression. If manufacturers could feel some assurance with regard to the salability of their products, many would be inclined to produce ahead for stock in spite of the costs involved. But if there is reason to fear that the product will have become entirely unsalable, production is regulated closely in accordance with current demand.

1 Separate Treatment of Style Problem

Misunderstanding will be avoided if the problems of reducing the excessive number of variations of products in general are treated separately from the special considerations

bearing upon the reduction of extreme style hazards. The first part of the chapter therefore deals with such products as sewing machines, knives, etc. These variations are not necessarily seasonal, but are continually being evolved because of a failure of industrial concerns to coordinate their activities. The second part deals with styles. There is a tendency for the scoffer to evoke the picture of everyone wearing standardized clothes. There is no need for this. Any rational proposal with regard to articles of clothing or adornment must be based on what is desirable, feasible, and practical.

II CAUSES OF EXCESSIVE VARIATIONS OF PRODUCTS

Comparatively few of the numerous variations of objects have sprung from a genuine desire to contribute something new or better. Competition and unregulated individual manufacture is the main cause of excessive models of a product. Excellence of design is so secondary that the judgment of highly talented designers at the factory has little influence when opposed by the crude notions of a local merchant. Much of the difference between one item and another is purely dimensional. Minor changes are invented often merely to give the salesmen a talking point. Each manufacturer makes his own lines, and these often differ only by a hairbreadth from other products. Some 6,000 brands of paper exist. The president of a firm which reduced the number of its bond papers to 10 per cent of the former number a few years ago, its fine papers and linens to 4 per cent, its ledger papers to 14 per cent, and its cover papers to 12½ per cent, stated concerning his own industry that "New sizes and varieties had arisen through caprice, accident, and short-sighted opportunism."¹

One sales expert has testified that in examining the distribution problem of one of the best and oldest sewing-machine companies in the country, he found that a standard model which he considered as good as any home sewing machine available constituted only 40 per cent of the firm's sales. The other 60 per cent consisted of models made up

¹ *System*, September, 1921, p. 265.

to imitate competitors' models in order to interest each line of trade they could possibly reach, so that in some cases the production was in "infinitesimal quantities."¹

Even if there were some artistic loss by the elimination of excessive varieties, in a world where famine and poverty of masses of people still exist, should there be no sensible limit at all to fancy in production of things for ordinary service? A reasonable compromise is needed between the ideals of beauty and use. More than one design of pocket knife is essential, but why the 6,000 which the War Industries Board found when its program of conservation was instituted? Was there any great loss to civilization when the rubber-footwear manufacturers eliminated 5,500 styles? Indeed, both the artistic and the utilitarian elements of a product are likely to be better if attention is devoted to the excellence of a comparatively few.

III THE SIMPLIFICATION MOVEMENT

1 *Types of Simplification*

The word "standardization" has given many persons a wrong impression as to what is intended in the movement to reduce the varieties of products. Happily, the word "simplification" is coming into general use as a means of directing attention away from this misconception. The author will use the term to indicate the whole movement for reducing the excess of variations in a line. "Standardization" is given a more restricted meaning, as seen below. Simplification involves the following three gradations:

Elimination—the mere reduction of the number of variations in a line of products manufactured by a firm or an industry.

Standardization of component elements (partial standardization)—making exact and uniform specifications for certain parts or elements of a given product, so that they may be used interchangeably on all the products made by a firm or an industry. A clock manufacturer found he was making

¹ John M. Bruce, in *Bulletin of the Taylor Society*, October, 1920, p. 208.

too many varieties of movements. He not only reduced the number of these, but by making many of the parts of these movements interchangeable, he was able to reduce the number of varieties of parts considerably and secure a great reduction in costs.¹ A manufacturer of farm implements who made forty-one release and lever springs found he could make his beginning in simplification by reducing the number to a single one containing the best points involved. Formerly 179 different lamp bases, to fit various sockets, were manufactured. Now the seventy makers produce only six standard sizes of bases, designed to fit every kind of lamp.²

Complete standardization—the setting of exact specifications for all main parts, as in a Ford automobile or in paving brick. Another example is telephone equipment, for which the specifications are absolute in America, while in Europe there are many varieties.

Standardization of parts and dimensions is not inconsistent with the development of increasingly beautiful and serviceable products. This may be illustrated by the work of the Associated Tile Manufacturers, in connection with what is known as "ceramic mosaic." Until the standardization was effected, every manufacturer devised and mounted designs in whatever manner or size seemed most convenient. The inevitable result was the production of all sorts of sizes of sheets, mounting boards, mounting paper, and shipping boxes. Standardized sizes of sheets are now used. The widest variety within the limits of economical production is still retained, and the development of new or special patterns is directed into the channels of standardization. An endless number of odd-size sheets has been reduced to fourteen standard sheets.³

Of course standardization is to be considered permanent only in the sense that constant research reveals no better product. Engineers warn against the tendency of getting so much set on a product that a change in the specification of

¹ C. E. Knoeppel, *Graphic Production Control* (New York, 1920), p. 399.

² *Factory*, August, 1921, p. 177.

³ Letter to writer from M. A. Illing, the Associated Tile Manufacturers, Beaver Falls, Pa., August 16, 1922.

a bolt or a nut involves contending with a powerful inertia. As in all other business policies, open-mindedness is required. Too great conservatism will interfere with experimentation and improvement of product.

IV PROBLEMS OF SIMPLIFICATION BY INDIVIDUAL FIRMS

Variations and styles have economic disadvantages, but they also have their beneficial effects. They may stimulate demand which might not otherwise exist. Therefore the problem must be approached from a business standpoint, and with all economic and psychological considerations in mind. Simplification through the individual action of a single firm is practicable in some cases ; in others, cooperation of all the firms in a trade may be essential.

1 *Fear of Competitors*

What worries many firms is whether simplification will not mean the loss of business to more obliging competitors. This fear is often unfounded. The elimination of lines necessarily implies that the most unprofitable ones are discarded. A business consultant with wide experience states :

I happen to have the opportunity to dig pretty deeply into the causes of profits or losses in a great many different plants in many industries. It is rarely that I see an unprofitable enterprise which is completely given over either to standardized production or to craftsmanship products. On the other hand, most of the concerns which are unprofitable and which are heading for or have achieved bankruptcy are those whose executives are constantly vacillating between the salesmen's demand that the factory make anything that they can sell, and the factory's demand that the salesmen sell what it can make.¹

It has often been observed that the firm which has courageously simplified its line has not always found that the trade it discarded was taken up with glee by its chief rivals. Instead, such competitors have in numerous instances felt the pressure of the new price level offered by the firm with

¹ William R. Basset, in *System*, October, 1921, p. 494.

a simplified line, and have been stimulated to think about their own misjudgment in overextending their variations. Imitation, or even more rigorous simplification, has often followed. When the Winchester Company decided that instead of the 6,000 different patterns of pocket knives made by one manufacturer prior to the war, 129 patterns would suffice for a full line, one of the largest competitors went the firm one better by cutting its line down to 116 patterns.¹ The Burt & Morse Company met with similar experience when it standardized its "Cantilever" shoe.² Indeed, simplification of lines by a manufacturer is one of the greatest forces for further simplification by other manufacturers and by related trades.

This is because advantages often accrue to the firm with simplified lines over competitors with numerous variations of product. In telling of a standard tire to which the production of a whole new factory was devoted, the president of the Firestone Tire and Rubber Company, stated: "The single product makes possible the most minute consideration of every detail of design and process, and the resulting product is likely to be ten times nearer perfection than when the same organization is occupied in manufacturing ten variations of the product."³ Cost is likely to be less because of production in larger quantities. Deliveries should be more satisfactory. In some cases simplification should make for increasingly wider consumption and accelerate the growth of a business.

2 *The Reaction of the Consumer*

There need not be any worry about the objections of the consumer if the manufacturer and the dealer unite in promoting simplified lines. The consumer will be little affected or restricted, for many variations asked for are not founded on any real need. Most consumers will not even know of the reduction of variations. The education of the public to

¹ *Bulletin of the Taylor Society*, October, 1920, p. 205.

² *Printers' Ink*, July 13, 1922, p. 89.

³ *Factory*, December, 1921, p. 741.

realize the economies of simplified products should be part of the program.

If a change in line involves direct restriction of the choice of the consumer, there are a number of policies which may be coupled with simplification to make this appear in a favorable light. A large manufacturer of photo paste reduced his tube line to one size. But in doing so the change was "sugar-coated" by putting the paste into a better and more artistic container and by featuring new uses of this paste in office and library work. One element which it solved, for example, was what to do with the cap of the tube. In this container the cap was made heavy enough to keep the needle pointing upward vertically when laid on the table, so that the tube might be separated from the cap without danger of soiling the desk. It thus was made more attractive to both dealer and consumer, and, incidentally, brought the firm a larger business in this one type than the total in the former kinds.

Mr. Henry Ford emphasizes the element of price as a means of getting popular acceptance of reduction of variations. If standardization results in saving, the price should be reduced.¹

Where competition is so keen that a firm fears to reduce the line, one excellent method is to retain the varieties in the catalogue and perhaps even in stock, but to put the force of the sales organization behind orders for the simplified lines. The Walworth Manufacturing Company at one time prided itself on its ability to turn out any kind of fitting the engineer or architect desired, no matter how whimsical. It had some 17,000 different items in its catalogue. The stringency of material during the war and other factors turned the attention of the company to the need for vigorous promotion of simplification. By critically reexamining its products it was decided that 610 of these were the "significant items," and selling and manufacturing effort was concentrated on distributing these items. By campaigns energetically and persistently promoted, which included the education of the company's salesmen, the dealers and the engineers, satisfactory results were secured in inducing the purchase

¹ *System*, March, 1922, p. 260.

of the "significant" items rather than the "insignificant ones."¹

3 *The Reaction of the Dealers*

For many reasons the simplification of products will help the dealer as much as the producer. Like the producer, he carries a good deal of stock on hand for possible sale to chance customers. One manufacturer met resistance to simplification by offering to prove to his dealers that 90 per cent of his sales had been in products which were retained in the simplified line. Education of the dealer is thus a primary step in securing his cooperation.

Persuasion alone will not always suffice, and the manufacturer who can afford to do so must often remain firm in his policy during the transitional period, at the cost of temporary sacrifices. There is a need for such firmness on the manufacturer's part. When the Regal Shoe Company reduced the number of its styles, it lost the trade of a large number of retailers who were unwilling to cooperate in the plan. But, on the other hand, the economies in production allowed for a lower uniform price, and the increased sales resulted in a larger aggregate profit in 1922 than on the higher prices of the boom times.²

The instances are examples of a persistent philosophy that turned out successfully. But while the advantages of simplification by an individual firm are many, the fear of losing out to competitors weighs heavily in the minds of business men. The fear of competition could be removed only by associated trade agreements. The possibilities of this method need be considered.

V SIMPLIFICATION BY ASSOCIATED TRADE ACTION

Simplification promoted by the joint action of the manufacturers of a trade has many advantages. Associated research can establish the needs of the industry best, and important action by allied trades may be secured. The prejudice of the individual dealer and distributor, or of the consumer, will not be borne by a single firm engaged in

¹ *Factory*, September, 1921, p. 317.

² *System*, November, 1923, p. 650.

reforming long-established trade practices, for the whole trade will have modified its customs.

Of particular importance is the cooperation which simplification requires from allied trades. Much manufacture involves the assembly of parts manufactured by other industries. When a committee of the National Spring Bed Association began its campaign for standardization of dimensions of bed springs, it could not make much headway until it secured the cooperation of the Metallic Bedstead Alliance, 90 per cent of whose members adopted the recommendations, and the wood-bed makers, about 85 per cent of whom also indorsed the program.¹

One example that shows the possibilities of a trade-association program is that of the Associated Tile Manufacturers, which went almost the whole way in standardization in various directions. One of the first efforts was the standardization of definitions of trade names and titles, and later grade certificates were adopted. The largest effort, however, was the standardization of the patterns for so-called trim tiles. The thoroughness of the work can be seen in that it took about five years to complete. There has been a reduction in the number of patterns from 735 to 115, and a refinement of those retained. Uneconomical patterns were eliminated or redesigned, while complicated ones were simplified. Even the preparation of separate economic catalogues by each manufacturer—a source of great waste in industry—has become unnecessary. The association has prepared a descriptive catalogue which serves for any manufacturer, and which, according to the association's executive, gives more and better information than all former catalogues combined. It is interesting to observe that the member factories of this group had been working to capacity for the past three years at the time information was secured.²

1 The Leadership of the Government

The need for more economic production during the World War gave the impetus to associated action for simplification

¹ *Factory*, March, 1922, pp. 276-277.

² Letter from M. A. Illing, August 30, 1922.

and standardization. Through the Commercial Economy Board of the Council of National Defense, which began functioning on March 24, 1917, and later the Conservation Division of the War Industries Board, each industry was requested to organize in order to consider the opportunities for simplification and submit specific recommendations. This method of putting the responsibility upon the business men themselves proved an excellent stimulus to thought, for as the various manufacturers gathered data concerning the multiplicity of styles and models, many realized more clearly than ever the wastefulness of unregulated production of variations.

National leadership in the movement for simplification was continued under Secretary Hoover. The Division of Simplified Practice was established in the Department of Commerce to serve as a centralized agency in bringing together producers, distributors, and users in order that they might adopt and support a common program of simplification. Among the services offered by the Division of Simplified Practice are: talks to trade associations and other groups; the authorization that the secretary of a trade association or some other person selected by the industry may represent Secretary Hoover in making a preliminary survey; arrangement of a general conference at the Department of Commerce in Washington; publishing of the recommendations of the general conference with the moral prestige of the Department, and requests from the Department to each individual producer or distributor that he formally accept the recommendations adopted. The Chamber of Commerce of the United States, through its Fabricated Production Department, has been actively cooperating with the Department of Commerce in investigating the opportunities for simplification and in promoting the movement.

It is thus evident that any firm or executive desiring to promote the movement for simplification in any industry can secure the backing of official government and business sources in this direction. The following table contains some examples of industries which had simplified their lines up to January 1, 1925, taken from a longer list supplied by the Department of Commerce.

	Reductions in varieties	
	<i>From</i>	<i>To</i>
Vitrified paving brick.....	66	5
Milk bottles.....	49	9
Milk-bottle caps.....	29	1
Hotel chinaware.....	700	160
Bed blankets (sizes).....	78	12
Woven-wire fence packages.....	2,072	138
Woven-wire fencing.....	552	69
Rough-face brick.....	39	1
Beds, springs, and mattresses.....	78	4
Hollow building tile.....	36	19
Files and rasps.....	1,351	496
Range boilers.....	130	13
Fixed wall blackboards (slab heights).....	90	3
Portable, or small, blackboards (sizes).....	141	14

A number of other industries were well on the way of adopting self-imposed restrictions. On July 1, 1924, basic standards of sizes and weights came into force in the paper industry, the lumber industry, and several others.¹

2 Technical Standardization

In the narrower field of the technical standardization of specifications for the products used in various types of engineering, the work of the American Engineering Standards Committee is an important influence. The committee is composed of representatives from nine national engineering societies, fourteen national industrial associations, and five departments of the federal government. The committee itself does not create standards. It functions as a clearing house for engineering and industrial standardization and as an official channel of cooperation between various groups.

In other countries, notably Germany and England, the work of standardization is being pushed vigorously. In Germany 5,000 firms are supporting the program and great progress has been made because, in part, the country realizes

¹ For the best recent bibliography on simplification, see "A New Movement Takes Hold," in *Factory*, March, 1924, pp. 318-320.

that it will fare best in international competition by instituting the economies possible by perfecting the product and standardizing output.¹

VI SIMPLIFYING STYLES IN STYLE-BOUND INDUSTRIES

Among the reasons for separating style trades from the preceding discussion is the rather distinctive character of the problems connected with personal appearance. Sometimes the failure to respond to changes of fashion may even lead to bodily harm. The *New York Times* of September 16, 1922, for example, records the fact that "City Has Wild Night of Straw-hat Riots. Gangs of Young Hoodlums with Spiked Sticks Terrorize Whole Blocks. Victims Run the Gantlet." Aside from such cases of physical danger, social pressure with regard to being-in-style are extreme enough. In no other industry is utility so much subordinated to the purpose of adornment as, for example, millinery. No matter how good the conditions of the fabric and how excellently designed the pattern of a woman's garment, few products will be so quickly abandoned by even the poorer element of the population as a suit or dress which is out of style.

It is recognized that the desire to express one's individuality or one's vanity in personal appearance, observed even in primitive races where dress is at a minimum, is one of the deep-rooted human traits. But has not the fashion element in clothes been carried to extremes? The need for progress in the control of the chief excesses of style need hardly be argued. Sudden changes from knee-length skirts to those that trail the ground, oddities of design, and the bewildering number of styles suggest that women's clothes could be simplified with considerable advantage to all concerned. But along what paths may effort be directed?

The chief problems are the main clothing items. Styles of petticoats, belts, underwear, hosiery, and other products

¹ See also "Industrial Standardization in Germany," *Mechanical Engineering*, February, 1922, pp. 136-137; and the U. S. *Monthly Labor Review*, December, 1921, pp. 10-11.

depend on the main clothing items somewhat, nevertheless manufacturers in several instances have adapted themselves to the conditions with fewer and simplified lines. Because the problems are fewer and there are several striking instances of simplification of styles in the shoe industry, this will be the first style trade discussed.

1 *The Shoe Industry*

Shoe manufacturers have done most of all in the simplification of their lines. The policies in this regard of the huge International Shoe Company, the largest single firm in the country, are well presented by Mr. Jackson Johnson, the head of the company, who states his attitude strongly on this point in an article in a business publication. An excerpt from the article follows:

A good many dealers like to buy shoes specially made to fit their own ideas. If you have a standard shoe with square-edged soles, say, the dealer may tell the salesman he will take so many cases if you will make the shoes with bevel-edged soles.

—That is not much of a change. We could make it rather easily on one lot. But we would lose a very large order before we would make such a change.

Why?

Simply because one such change would inevitably lead to others. With frequent changes of this sort we could not manufacture economically. . . . We would not be giving full value, especially since we believe we know better than the average dealer whether the sole on that shoe should be square or bevel-edged in order to serve its purpose best.

So, in the interests of our customers, we do not let anybody outside of our organization become our designers. Some of our factories make as many as a million pairs of shoes without changing the style.¹

In a letter written subsequently to the author, Mr. Johnson stated that 99 per cent of the goods of his concern is manufactured for stock.

¹ *Forbes Magazine*, July 8, 1922, pp. 326-327.

The Regal Shoe Company had 2,500 styles in 1920, but cut the number to about 100 after the depression. Even if the cutting down of the number of styles has a tendency to impair a firm's ability to attract customers by novelty, the cutting down of the price that should come with simplification should make up for it. The company cut its price to \$6.80 at a time when this was not high enough to cover its cost of production and selling price, and later to \$6.60. The company claims that not one of a thousand of its customers knew that the lines had been cut and that because of simplification it lowered prices 35 per cent, found its inventory needs 25 per cent smaller, and doubled its sales.¹

Other shoe manufacturers may be cited in this connection. Lotus, Ltd., an English firm, which advertises heavily under its brand name, is enthusiastic with regard to the success of its long-established policy of simplification of styles.² The Edmonds Shoe Company, an American concern, testified to the success of a one-style line in growing in five years from a start to a concern doing \$4,000,000 business a year. The president states that "our business is built on the principle that one product is big enough for any one plant to manufacture."³

The Cantilever shoe is subject only in a limited degree to the fluctuations of style demand and its whole production is devoted to a staple model fitted to the form of the foot. The success of the company in regularizing production is seen in the following extract from a letter to the author:

We maintain a stock department of our own for which we manufacture heavily in times when orders are low. For example: We are now running on the first of our spring season; we have not yet sent out our salesmen, neither asked for nor received any of our customers' spring orders, but are running at full capacity on shoes for our stock department which bridges over this little gap that always occurs at the beginning and end of every season.⁴

¹ *System*, November, 1923, pp. 594-597 and 648-650.

² *System*, July, 1923, pp. 40-42.

³ *System*, August, 1923, pp. 156-158.

⁴ Letter from sales manager, September, 1921.

2 *The Women's Garment Industry*

(a) *Origin of Styles*

A brief account of the creation of styles in women's garments, how these styles become the popular vogue, and the forces which are making for increasing sway of fashion in America will aid in clarifying the problem.

For many years Paris has been the world's undisputed source of style in women's clothes. About a score of the leading houses located on or near the Rue de la Paix create the models which influence the style throughout the world. These modes determine the style of the dress, the weave and pattern of the fabric, even the style of the shoe. While the designers of other countries occasionally originate an important fashion, an expert on the problem states that "the dominance of Paris in styles and fashions is as complete as it was in the days of Louis XIV."¹

This dominance is one both of prestige and of talent. The French specialists in design seek suggestions everywhere. The treasures of European art museums and the various periods they represent, costumes of popular dramas, important contemporary events, and an expression of popular fancy are among the unlimited number of things which may give the suggestion of a new motif. Each of the leading houses evolves scores of designs every season. From the hundreds or thousands a few survive. But these few creations become the point of departure for the designers of a large part of the world.

The chief professional activity of the Parisian designers is to keep the styles unsettled. If they create a style appealing enough to become popular, they no longer can offer that style to the titled woman, the leader of fashion, and the actress who constitute their primary clientele and who want the unique, the wholly different mode.

The actual transference of style between the Rue de la Paix and Main Street takes place faster than was ever possible before. The process is an interesting study. To begin with, the dominance of Parisian style is aided by the

¹ Paul T. Cherington, *The Wool Industry* (New York, 1916), p. 175.

leading American firms. To be able to boast they are up to the minute in their interpretation of the Parisian trend, the buyers and designers make frequent trips to Europe to be on hand when the styles are first exhibited. Mail is not fast enough. Often the news is cabled. The exact model is not necessarily copied then, but the main lines of the new fashion are used as an outline for local modifications.

Perhaps the most important influence in spreading the prestige and leadership of Parisian designers, as well as style trends in general, are the women's magazines and the women's pages in newspapers, with their enormous circulations and their appealing pictures. The growth of the larger-scale retailing, such as mail-order houses or chain stores, has put buying in the hands of those who are peculiarly alert to the trend of style and who have systematic methods of disposing of stock that is slow in selling, so as to be able to provide the current fashion. Moving-picture houses give exhibits of styles. On the subject of fashion even those in remote villages have been pried out of their isolation.

As a result of these influences, no longer is there a dumping ground for fabrics and styles which do not happen to be in accord with the trend. It has been stated that a dead style is now as dead in Nevada as it is on Fifth Avenue. The diversity of dress required by the fashionable ladies at the races in Paris or at the Riviera thus affects the dress of the saleswoman in the five-and-ten-cent store and complicates the manufacturing problem of the clothing industry.

The influences that make successes of some styles and failures of others are mysteries which even the most experienced buyers and designers find difficult to determine. A firm which finds a good style often cannot work on the successful lines a whole season because of "piracy" by other firms. Such competitors are spared most of the cost of style development and are often able to outbid the originator of the style on his own creation. This "piracy" adds to the irregularity of employment as follows: the firm which indulges in "piracy" has to rely on the use of temporary seasonal labor so as to partake of the first fruits of a popular style; the firm which originated the style must meet this condition by being first in the market with a supply,

All this means pushing production to the utmost at certain times of the year. Alternation of serious slack seasons with periods of intensive activity naturally follow from these methods of production.

The problem is evident. The need for some progress is great. What can be done about it by an individual firm? What is the field for cooperative action?

(b) Simplification by Individual Firms

An individual firm in the garment industry would seem to have many difficulties to cope with in simplifying its line. It would be a great object lesson to see what the results would be of the attempt of a manufacturer to market a line of garments for ordinary wear whose appeal made much of comfort, efficiency, health, durability of cloth, and conservative style. We have the approach to these in the looser models of apparel in some of the higher grades of sporting goods stores. Among the few concerns which are known to have attempted to keep away from the excesses of style variations is the Printz-Biederman Company, of Cleveland, Ohio.

Three elements of business policy of the Printz-Biederman Company have served to simplify their lines somewhat. The most important of these is the establishment of a direct relationship with the consumer, through well-planned national and local advertising of the firm's garments, so that some purchasers demand a garment with a "Printzess" label. This means that the woman comes to believe that this garment is in good style, or even that it sets the style. The local retailer is thus assisted in persuading the purchaser that the models available are in better style than those with more extreme variations seen in some other store. A second point is that some control was achieved over the local retailer by giving him somewhat more than the customary cooperation. The retailer who gets the advantage of national advertising of the parent firm and has built up a local reputation for selling that line hesitates to give up this exclusive agency merely to enforce his ideas of the style. A third point is that the firm itself does not unduly restrict

its style offerings. The tendencies of style are portrayed in the models, but the most stable ones are urged. The firm thus merely resists extremes of style changes.

(c) *Possibilities of Cooperative Action*

However, there is little reason to believe that signal success in simplification may be achieved in the women's garment industries by the efforts of individual firms. It is said that there is no firm in this industry whose output is as much as 1 per cent of the total produced in the country. Only by a union of the large houses of the trade in a program of simplification might some progress be hoped for, if at all. The style factor is, however, the main basis of competition, and such a union is unlikely. Assuming, however, that a cooperative national effort could be evoked, what program of activity could be suggested for their guidance?

Mr. Paul T. Cherington, formerly secretary of the National Association of Wool Manufacturers, in a stimulating book on the wool industry, has outlined some lines of constructive work for such an association.¹ These may be summarized as follows:

1 The suppression of misleading and exaggerated style information. This, as can be seen, would reduce some of the difficulties of style prediction and correct many errors of distribution.

2 The development of sounder methods for getting styles adopted by the trade on this side of the Atlantic. This would involve the elimination of extremes of Parisian styles while conserving their best features. The implication is that there would be some form of censorship which would control the showing of styles that do not conform to certain sensible limitations of design.

3 The adoption of vigorous and enforceable codes of ethics and practice to restrict cancellations due to error in anticipating styles.

4 The prevention of style pirating for either fabric or cut, by law or otherwise, to make it possible to have style showing earlier in the season.

¹ Paul T. Cherington, *op. cit.*, pp. 189-190.

But Mr. Cherington does not recommend a plan for simplifying the varieties and styles of clothes. He pays his respects to the subject by stating that while the general spread of a simple-clothing cult would be the most direct method of solving the difficulty, it is the least probable. He considered equally improbable the hope of getting the millions of women who have no business to try to follow fashion to adopt something like standard types of dress.

Others are not so pessimistic about the possibility of affecting the taste of the consumer if the right effort is exerted. An investigation of the conditions in the women's clothing trades, made some years ago, concludes concerning the possibilities of educating the consumer to purchase more staple goods, that "If all the manufacturers devoted the same effort to pushing standard lines with moderate innovations from year to year that they now give to introducing novelties, . . . the situation would be changed materially for the better."¹

The requirements of the great majority of women in the country are somewhat separable. Industrial and commercial occupations require some clothes which, though neat and presentable, are designed along simpler lines and are more durable. There are types of work in which the style of dress worn offers no great advantages. By the offer of various inducements in price and proper publicity a considerable business of a permanent sort in more stable types of clothes could perhaps be developed.

Much criticism has been leveled against women for being extreme in their tastes. No doubt the failure to adopt a more sensible attitude toward clothes has caused women greater sacrifices in expenditure for clothing at the same time that irregularity of employment has been increased. Action by women's organizations has been urged by various students of the problem. Miss Mary Van Kleeck, mentioning discussion of the subject by the General Federation of Women's Clubs and the National Consumers' League, hopefully remarked that "Women themselves will attack the problem before long."² But there is practically nothing of impor-

¹ U. S. Department of Labor, Bulletin 183, *op. cit.*, p. 93.

² Mary Van Kleeck, *A Seasonal Industry* (New York, 1917), p. 195.

tance to report. A cynic on the subject states that in one large city the woman's club appointed a committee to deal with the simplification of dress, and that the committee recommended a standardized garment for general wear. Then samples were even made up for exhibit. But the members of the committee did not themselves show willingness to wear the garment and the effort failed.

There is no doubt, however, that widespread support by women's organizations could be obtained for a movement of simplification. The real reason why this cooperation has not been secured is the failure of the industry itself to take up its problems and to organize these auxiliary forces in its support. Without constructive leadership by the main body of garment manufacturers, the efforts of consumers' leagues and other civic agencies would be in vain.

Today, obstacles are put in the way of those who are willing to purchase staple goods or to buy them during off season. It is often impossible to get the desired garment because the dealers are selling only the new styles and the manufacturer likewise is making only the popular models.¹

(d) Present Disintegration of the Industry

It has been shown that individual action has its limits in the women's garment industry. However, cooperative action, no matter how desirable, is not likely to be secured in the industry for the purpose of simplification. There are several reasons. One is that the manufacturers are in no way anxious to encourage any tendency which would make it possible for women to wear clothing for a longer season than they do. Many would prefer that style changes should

¹ The writer can confirm the testimony of women in this connection by an incident in his own experience in attempting to purchase staple items of men's clothing. In June, 1922, he attempted to purchase a dark-blue suit of good quality and staple style and a dark-gray top-coat. He could not secure either of these in fully a dozen stores, because the fashions of the season were different. On relating the experience to the head of a very large manufacturer of clothing, he was invited confidently to the stockroom to select what he wanted. But even in this central source the desired styles were not on hand and two staple items of clothing had to be manufactured as special orders.

be so frequent that the woman who wore the same suit a month would feel uncomfortable with regard to the style. Another is the peculiar psychological problem of the type of leadership in this industry. Third, there is the fact that the disintegrated condition of the industry makes the prolonged association of the manufacturers for a social purpose a thing to be wished for but not to be expected.

This last aspect presents the worst problems. The manufacturer with a well-organized force of workers has lost ground steadily to the large jobber who maintains no factory organization, but who buys originations from the fine private dressmakers, or creates his own styles, and then has them duplicated by small subcontractors called "outside shops." For example, until about 1912, "inside shops," assisted by bundle contractors, were responsible for practically the entire output of the cloak and suit industry. Since then the inside shops have so declined in the proportion of business done that approximately three-quarters of the output of the industry is already produced through the jobber-submanufacturing system.¹ This means that a large part of the manufacturers have no relation to style determination. As the redemption of the industry from its present disorganized state is a problem prior to the outlining of an exact program for reducing the havoc of styles, a note on the situation follows. This is based on a report containing an exhaustive study of the cloak and suit industry in New York City, published in April, 1925.² It is representative of the situation in the trade as a whole because the New York market has been responsible for about three-quarters of the entire output of the industry in the country.

Although difficulties with labor and other factors have played their part, the increasing interest in styles is believed to be the chief cause of this trend towards jobbing. The greater variety of models has given the jobber numerous

¹ See p. 10 of the following citation.

² Governor's Advisory Commission. *Report of an Investigation on the Cloak, Suit and Skirt Industry, New York City*. By John Dickinson and Morris Kolchin. Prof. Lindsay Rogers, Columbia University, was secretary of the Commission and Director of the Investigation (New York, 1925) 164 pp.

advantages. He could carry a larger line than a single manufacturer. By having many submanufacturing shops at his disposal he could make quicker deliveries. He could often get garments made at lower cost because he could shrewdly play one submanufacturer off against another. The latter, in turn, could often bid low through the evasion of union wages and conditions, since it is hard for the union to control the many small scattered shops. With these disadvantages, inside shops have decreased in size and importance, and lost out to small submanufacturers. In a list of 190 inside shops, only 24 had 60 workers or more, and the largest did not have as many as 160 workers.¹ Taking inside shops and outside shops together, the average number of workers per shop declined from 29 in 1914 to less than 17 in 1924.²

The jobbing-submanufacturing system has tremendously increased the insecurity of employment because the jobber has divorced himself entirely from responsibility for conditions of production and regularity of operation. He places orders chiefly with an eye to the lowest competitive bid, using from a dozen to as many as over 200 submanufacturers in a single season. The submanufacturer can do little on his own account if the jobber does not give him regular work. Chiefly because of the haphazard system of placing orders, more than one-third of all the submanufacturing shops go out of business each year, turning loose close to 25 per cent of all wage-earners employed in the industry annually.³ This instability is aside from the chronic and seasonal irregularity of employment, as illustrated by the following: no inside shop offered less than the equivalent of twenty-seven full weeks of employment during the year ending on June 30, 1924, and almost a third gave an equivalent of more than forty weeks, but almost 52 per cent of the submanufacturing shops gave less than twenty-seven full-time weeks of employment, and only about 3 per cent more than forty weeks.⁴

The general principles of a solution for the situation in the industry suggested in the report to the Governor's Com-

¹ *Ibid.*, p. 34.

² *Ibid.*, p. 104.

³ *Ibid.*, p. 5.

⁴ *Ibid.*, p. 106.

mission by the investigators is to get the various elements in the industry to agree on "readjustments in the methods of doing business which (1) will tend to bring about a closer rapprochement, and a concentration of responsibility, between the selling and the producing ends; and (2) will tend more directly to stimulate the growth of large shops by removing the handicaps at present operating against them," especially any union restrictions that stand in the way of production at lowest cost.

To avoid a protracted strike over the numerous demands, the various groups consented to the appointment of an impartial commission by the Governor, to make recommendations on the issues involved. The recommendations then made by the Commission were substantially accepted by the parties as a basis for new agreements. But the Commission postponed its conclusions on three vital issues until the questions could be thoroughly investigated. These were the union's demands for (1) the limitation of submanufacturers and (2) for a guaranteed term of employment, and (3) a demand by the submanufacturers' association for the provision of a "minimum labor-cost-price," in all contracts between jobbers and submanufacturers. The purpose of this is to cover at least the labor cost of such work at the union scale of wages and under union conditions, so that bargaining between jobbers and submanufacturers should take place only above that level. At the time of going to press, the action of the Governor's Commission with regard to the investigation in its possession had not yet been announced.

The outlook for immediate improvement is not hopeful. If the problems of regularization of employment prove too many and too difficult in this industry, there may be little else for the worker to do except to demand compensation for idle time. It should be a plan which will penalize the most careless and inconsiderate employers and at the same time provide benefits to the workers that will give them some feeling of security. Already an unemployment insurance plan has been established in the New York market, the employer paying two per cent and the workers one per cent.

3 *Style Competition in the Men's Clothing Industry*

For many reasons the problem of style should be much less serious in the men's clothing industry than it is in the women's garment trade. It is said that in order to induce a man to purchase a particular kind of suit, one should say that everyone is, or will be, wearing it, but to sell a garment to a woman it is advisable to suggest that no other like it has been made and that it will be unique. In contrast with women's gowns, the proper dress for more formal occasions is practically standardized. Another advantage is the fact that while quality in women's clothes is accompanied by a tendency toward the extreme, quality in men's clothing is an approximation to stability. There are other promising features in the men's clothing industry. One of the most important is the increase of firms advertising their product nationally, resulting in large-scale production. The sale of goods by brand names has made it difficult for a dealer to substitute clothing made up in the previous few days or weeks by sweatshops, and thus has prevented much of the watchful waiting for the popular styles that characterizes the women's garment trade.

All these advantages over the women's garment industry are mentioned only to show that if the changes of style were not continually impressed upon the consumer by competitive effort of various clothiers producing novelties with which to catch young men's fancies, a large proportion of the male population would be content with well-fitting clothes that involved only slight variations from those of previous models. Employment in the industry would be more regular. But the clothing firms themselves compete on style to a great degree. Some of the most consistent believers in simplification among the manufacturers have had to yield to the trend of the times, which is toward more and more style. The depression in 1921 had a good deal to do with this, for when the purchaser showed a disposition to hold off, the retailer and the manufacturer endeavored to find particularly appealing styles to attract trade, and evolved fancy models intended to cause the younger and more sporty element in the male population to buy new clothes. The local dealer who found

that the clothes he had in stock were not moving was particularly insistent in his demands for new styles that had "snap" and "class." It was practically impossible for an individual manufacturer to resist this tendency.

The retail clothiers, in fact, have for a time dominated the situation. Instead of stemming the tide of fashion changes they have done much to stimulate it. An example of over-emphasis may be seen in the following extract from a clipping describing part of the program of a convention of the National Association of Retail Clothiers, Madison Square Garden:

As a single division of the convention activities, the style show is expected to get a very large share of attention. It will be one of the most complete and artistic exhibitions of men's and boys' clothing and apparel that has ever been attempted. It will be staged under the direction of Alexander Leftwich, general director for Daniel Frohman. Sixty professional models have been engaged to display the new styles, and, while the models will be mostly men, women will also be used to set off the scene. A number of moving-picture stars, including Mabel Normand, Dorothy Dalton, and Hope Hampton will take part in this feature of the entertainment.¹

Some of the manufacturers have gone them one better. The following advertisement took most of a page in the *New York Times* of March 12, 1923:

KUPPENHEIMER

GOOD CLOTHES

YOU'LL BE ADMIRERD

Set the style pace for your circle of friends.
Be first with the new clothes idea. Let the
others follow you. You'll be admired and re-
spected. You'll feel brisk and alert. Kuppen-
heimer good clothes will do all this for you;
they are an investment in good appearance.

SUITS and TOP COATS \$35 to \$75

BRILL BROTHERS

Broadway at 49th Street

279 Broadway	—other stores—	47 Cortland St.
near Chambers street		near Greenwich street

¹ *New York Times*, September 5, 1922.

One large scientifically managed clothing firm for a long time overcame the customary slack seasons by developing certain staple numbers known as the serge specials, which are conservative blue, brown, and gray suits. These were adopted about sixteen years ago and at that time the idea was to manufacture them for stock at cost merely as a filler. Soon the large volume of orders in this line enabled the firm to make a normal profit on them. Other large manufacturers emulated the example. In issues of such magazines as the *Saturday Evening Post* two or more firms at a time have had full-page space advertisements promoting the popularity of such a staple number. Because of the fierce competition of the past two years, however, and the adoption of this filler by other manufacturers, the firm has had to go back to its original idea of manufacturing the serge specials at cost, and sometimes at less. These serge specials have constituted from 35 to 40 per cent of the total output of suits. The sales department has had responsibility for so assuring the sale of these serges through proper promotion processes that the factory might manufacture them at any time that this was needed to balance production. The firm also manufactures overcoats, normally constituting about 15 per cent of the total business, and here too a staple number is being developed.

Specially unfavorable conditions in the clothing industry in recent years have not made the simplification program easy for this firm. There comes a time when merely staple clothing merchandise may be hard to distribute, and a more diversified line, such as the addition of more "fancies," would have given another outlet. A specialized line has the selling disadvantage, mentioned in the previous chapter, that the dealer who cannot buy his full line from one company may be inclined to purchase from another firm. The resulting loss of customers may be due to a competitor's offer of that specialized line on a less-than-cost basis, thus nullifying the advantages of specialized production in large lots at low cost. The simplified line proved a weakness during the depression and after, when hard times curtailed the expenditure of the workingman. This affected the retailer, who, being unable to do much in the mature man's trade, called for

stylish clothes to attract young men and those who could be influenced to buy by the appeal of novelty. To this tendency the firm had to yield, and it has since added lines which cater to a greater extent than formerly to the style element.

The conclusion concerning the possibilities of simplification in the men's clothing industry is that the compelling fact of competition on a style basis prevents satisfactory stabilization of consumers' demand. The consumers' sensitiveness to the elements of fashion in clothes has been stimulated and aggravated by the competitive policies of manufacturers and dealers themselves. If manufacturers will adopt the policy of confining their competition to the merits of their product in terms of durability, correctness, quality, and simple style lines, rather than add to the development of fads, the style hazard will become much less burdensome to the industry. If fashion variations are persistently and willfully promoted, the pressure to put the cost of unemployment on the employer may prove an influence in causing the reconsideration of style policy.

CHAPTER VIII

CHANGING CUSTOMARY PURCHASING HABITS

I RELATION OF METHODS OF SALES OPERATION TO REGULARIZATION

It is important to emphasize the need of planning the sales policy well in advance, but no plans can be long adhered to if they are causing too much trouble in the bread-and-butter activity of securing sales. Certain phases of the actual selling of goods have a pronounced effect on the problem of eliminating seasonal irregularities of employment, and to some extent the other types of irregularities. It is, therefore, important to consider some of these special aspects of the actual conduct of selling operations.

The first consideration with regard to a distribution policy is the reaction of the ultimate consumer. Next in importance is the reaction of the dealer to whom the product is sold and with whose cooperation it reaches the consumer. And not the least of the difficulties are those within the firm itself. The latter are associated with the inertia and opposition of the sales force, whose interests often appear to be opposite to those of the firm which they represent. This conflict within the sales organization between the planners and the doers well serves to illustrate the need for considering all the practical problems of management in a study of our subject.

The following phases of sales operation will be discussed in this chapter:

(1) The education of the consumer to purchase goods in the manner most conducive to continuous production.

(2) The education of the dealer to order his requirements far enough in advance and to cooperate generally in the company's program of adjusting sales to operating needs.

(3) The education and control of the sales force so that the salesmen's activities will support, rather than hinder, the company's endeavor to regularize work.

(4) The possibilities of developing special retail distribution methods, such as stock ownership by retail stores, manufacturers' chain stores, and other closely related outlets.

The subjects will be taken up in the order indicated because the more the habits of the consumer are modified in line with desired policies, the easier it becomes to secure the dealer's cooperation, and this in turn reduces the problems of management of the sales force.

II GETTING THE CONSUMER TO BUY MORE REGULARLY

There are at least two important respects in which a change in the consumer's habits would aid in overcoming seasonal fluctuations of production. The first, discussed in the previous chapter, is a greater willingness to purchase simplified lines and standard articles. Another is the modification of the bad social habit involved in the mass movement which brings a rush of customers and a peak demand at one or more periods of the year. How can the consumer be led to purchase in a more regular way?

1 *Removing the Obstacles to Off-Season Buying*

Not infrequently the consumer who might buy his goods in times of slack demand is forced by various conditions to restrict his purchases to certain seasons. One obstacle, to be treated briefly because already mentioned, is the inability to secure a sufficient selection of certain types of goods except at the height of the selling season. This is especially true in the style-bound industries. A study of the millinery trade states that employers are so convinced that women do not buy hats in dull season, that "the most conscientious buyer finds it difficult to find any stock in hand in a millinery shop in January or August. What she finds is usually an advance model of the coming season, and if she happens to prefer winter hats while winter lasts, she goes away disappointed."¹

¹ Mary Van Kleeck, *A Seasonal Industry* (New York, 1917), p. 196.

A second obstacle is the fact that employers have not used sufficient ingenuity in making an article purchasable at the usual periods of slack demand. This is the case largely in articles of food and other products affected by weather conditions, which are often unpalatable or unappealing because not put up right for consumption at those times.

The development of more regular purchase of noodles and macaroni is a case in point. An executive in the industry states that formerly people would not buy this product in summer. The reason was that it was sold in open paper packages loosely wrapped and the boll weevil inside the noodle would be developed by warm and moist weather. The housewife often had to throw the noodles away. This spoilage could have been avoided by the right packing. In 1909, the C. F. Mueller Macaroni Company purchased the right from the National Biscuit Company to use the In-Er-Seal package, at that time patented. This package is air-tight and keeps the moisture out. By improving the product at the same time, the chief obstacles to the sale of macaroni in summer months were removed. Then, by sales promotion and good advertising appeals, the company fought its way through the strong prejudice that existed against such goods and eventually achieved a substantial warm-weather demand. Similar prejudices against summer purchases have been overcome by manufacturers of the better grades of canned soups and of other canned goods.

2 Stimulating Off-season Demand by Advertising

It is the custom of manufacturers to exert their main advertising efforts when demand is heaviest. The failure to attempt to get purchasers to buy at other times makes publicity an encouragement of the customers' bad habits rather than a force in counteracting and correcting them. Some remarkable achievements of advertising suggest how effective a control the manufacturer often may exercise over his clientele if he has expanded seasonal limitations in his own mind and freed himself from the notion that the demand is inherently and irrevocably seasonal. The instances cited include a wide variety of trades, so that the policy of using

advertising to stimulate off-season demand is widely applicable.

In food products numerous instances of progress in de-seasonalization are available. The packers of "Dromedary" dates have continually developed new possibilities for the use of their product in various kinds of salads and desserts. By advertising these new uses with appetizing illustrations, an all-year demand for dates has been secured, although seasonal peak loads have not been eliminated. A large candy manufacturer has achieved what seems a remarkable performance. By bringing his candy to the summer resorts and by full-page advertisements of candy in such mediums as the *Saturday Evening Post* he has developed a sharp peak of demand occurring during the summer, when almost every other candy manufacturer is operating on minimum quotas. The season for walnuts has been lengthened by advertising. Citrous fruits used to be seasonal, but now are consumed during the whole year. The same is true in perhaps a lesser degree of cranberries. The president of the Coca-Cola Company stated a few years ago that by persistent twelve months' advertising he made coca-cola an all-year product.¹ The efforts of the National Association of Ice Industries are particularly interesting. The association has begun a national campaign for the sales of ice in winter by teaching scientific food refrigeration and conservation.

Various items of clothing have been made less seasonal in use by advertising. When "B.V.D.'s" were first put out in the market, it was believed that the sale of this type of athletic underwear was restricted to periods of warm weather. This was later found not to be the case. Many men spend the whole day in office buildings or their homes, and warm underwear is uncomfortable. By using the opportunities of stimulating use of "B.V.D.'s" in cold weather, the manufacturers have developed a clientele of men who wear and purchase the athletic underwear all year. Another item so used are woolen stockings of the golf type. In women's clothes similar changes have been effected. We have seen "summer furs" worn in the hottest days and the thinnest hosiery and the most fragile short-vamp shoes in winter.

¹ *Printers' Ink*, July 29, 1920, p. 33.

Woolen sweater waists have been made a summer item of every-day wear, although sweaters were formerly worn in winter almost exclusively.

In other trades there are a good many cases of the use of advertising to make demand less irregular. The lengthening of the season for toys is one of the notable examples of deseasonalization. At one time the toy trade was confined largely to Christmas. But enterprising manufacturers enlisted the aid of advertising and established a healthy toy trade during the rest of the year.¹ Reed furniture, once only a summer seller, is now bought for the sun parlor all the year round.²

The Sherwin-Williams Company, of Cleveland, Ohio, manufacturers of paints and varnishes, some years ago used to do two-thirds of its business in the spring. A campaign was launched to "paint in the fall." The fall trade is now said to be as great as the spring trade. Then the problem of augmenting winter trade was tackled. A "finish the floors" campaign was planned, to point out old floors could be refinished with paint and varnish, and rugs used. By these devices, according to one statement by an executive of the firm, "one season follows another until the consumer paints and varnishes the year round and our products, instead of being seasonal ones, have an all-year-round demand."

The illustrations on this point are too many to be listed here. It is encouraging that, apart from the successful instances already known, the opportunities of modifying social habits are becoming realized more generally and are stimulating activity on the part of many industries suffering from seasonal peaks of demand. This is of far-reaching importance. When one industry's demand is improved because the consumer is taught to buy in off season, the cumulative effect is to make allied industries less seasonal.

3 *Inducing Slack-season Purchases by Reduced Prices*

In cases when the goods purchased cannot be used except at certain times, advertising will not be effective unless

¹ *Printers' Ink*, May 20, 1920, p. 176.

² *Ibid.*

reinforced by a direct appeal to the consumer's sense of thrift. A clear differential in price in periods of slack demand points to the loss of buying in the height of season, and has considerable influence on the purchaser. A familiar instance is found in the rates of long-distance telephone calls. One who is willing to postpone his call until the latter part

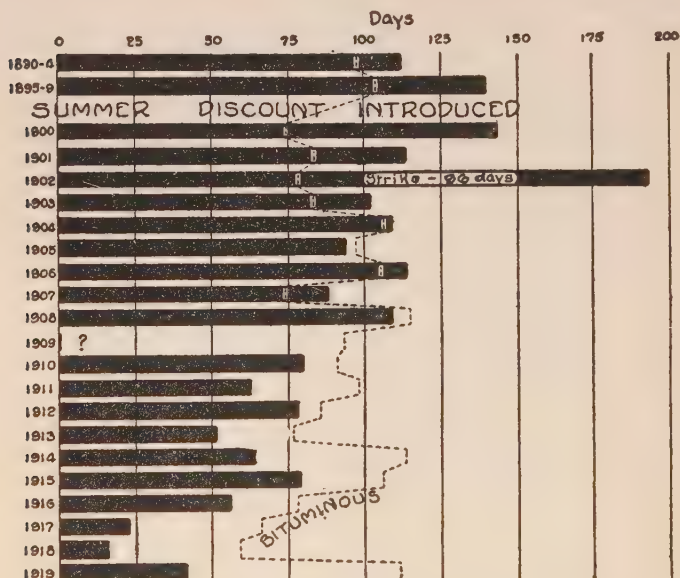


FIG. 7. DAYS LOST IN ANTHRACITE MINING BEFORE AND AFTER THE INTRODUCTION OF THE SUMMER DISCOUNT

This chart is based on a similar one issued by the U. S. Geological Survey. The black bars represent the average number of days lost. The zigzag line shows the losses in bituminous mining over the same period

of the evening pays a much lower rate than one who puts his call through during the time of the day when business has a peak load. Several instances more germane to this study are given in the next few paragraphs. The American Radiator Company uses this plan, but as its discount is given through jobbers, the details must be reserved for a later page of this chapter.

One of the best known examples of a seasonal differential in price is the summer discount introduced in the anthracite coal industry. The chart shown in Fig. 7 has been issued by the U. S. Geological Survey. A reduction in the number of days of idleness is shown from 142 days in 1900, when the summer discount was introduced, to 42 days in 1919. It is claimed: "In 1900 the 'companies' in the anthracite region inaugurated the policy of announcing a summer discount on domestic coal. A gradual reduction in time lost followed." This gradual reduction cannot be attributed entirely to the summer discount, but the statement is evidence of the belief of impartial authorities that it was an important influence in cutting down the relative amount of time lost.

A manufacturer of fertilizer was able to sell to the farmers in the fall by offering a lower price. A fur manufacturer reports success in securing off-season business by lower rates.¹ The Kalamazoo Stove Company offers slightly lower prices and attractive credit concessions to customers who buy in June, July, or August.²

4 *Intensifying General Sales Activity in Slack Seasons*

On every side one hears complaints to the effect that the falling off in demand in summer and at other times is in large measure due to sales lassitude. Many firms just assume that selling in off-seasons is impossible and do not go after the business they could get by more vigorous effort. That it is not impossible to get more business than if persistent effort is devoted to it has been proved in many instances. The Burroughs Adding Machine Company and others have special contests for summer business among its salesmen and they have found these added efforts worth while.

The vice-president in charge of merchandise in the Sears, Roebuck and Co., of Chicago, states that years ago the mail-order business used to be very much depressed in January and February and in July and August. The company then studied its problem and hit upon the plan of circulating a special catalogue, smaller in size than the regular book and

¹ Letter to writer, from Plymouth Fur Company, Minneapolis, Minn.

² *System*, July, 1923, p. 29.

with prices intended to appeal to the customers. The result was that this little catalogue not only bridged over the former dull months, but actually has been a stimulator for the larger catalogues. The official who tells of this plan confidently states: "With us the 'summer slump' is now a period of big business."¹

5 *Appeals to the Public through Consumers' Organizations*

No doubt there is room for considerable agitation on the part of consumers' leagues, women's clubs, civic organizations, and public-service agencies in general for more regular purchasing. The "shop early" campaigns around Christmas time by the Consumers' League in this country have had a wholesome influence in the modification of demand. But little effort has been made otherwise.

The work of the *Ligue Sociale d'Acheteurs*, in France, is an interesting example of consumers' cooperation in this problem. The motto of the league emphasizes the point that the power of purchasing creates an obligation to purchase in the right way. The league's bulletins inform purchasers of the existence of slack seasons or "rush" seasons and advises them when to buy. But the conclusion of one student is correct that "in the exaggeration of the power and good will of the customer lies the fallacy of all such movements."²

It is, therefore, the duty of industry itself, preferably by associated action, but in any event by the efforts of individual firms, to lead in the movement by removing the obstacles to the purchase of goods during off seasons, to give all possible incentives, and to conduct a campaign of education. Only by taking the lead in this manner and persisting in the program for years can the cooperation of civic agencies and social-minded consumers be used to the best advantage. Such a combination of forces would have a telling influence on demand.

III SECURING ORDERS EARLIER FROM THE DEALER

There is a certain antagonism between the desires of the dealer, who wants quick turnover and minimum investment,

¹ *System*, May, 1924, p. 710.

² Miss Juliet S. Poyntz, in *Seasonal Trades*, *op. cit.*, p. 59.

and the producer, who wants to manufacture economically and continuously. The producer wants to know long in advance of manufacture what products the dealer will desire and the amount. The dealer, on the other hand, does not want to place his order for goods until the last possible moment, makes the producer guess at the amount, and when he is ready to order wants the goods at once.

There is even a background of sharp practice which has prevented the dealers and the manufacturers from cooperating in their mutual problems. Such practices have been especially frequent in the clothing trade. Even very large retail stores have sometimes ordered large quantities of goods under conditions which would make some pretext for cancellation easy, have later canceled all or part of the order, and then have arranged special sales for which they have purchased, at mark-down prices, the very goods which they had ordered originally. Department stores are very reluctant to place orders far ahead, and their "red tape" of purchasing is often intricate and procrastinating in effect even when the buyer has placed an order well in advance.

On the other hand, the manufacturer has often taken advantage of the dealer's inability to foretell the style or to gauge his requirements. When enthusiastic but short-sighted salesmanship has once oversold the dealer, the memory of losses or of slow-moving stocks leaves a suspicion of all efforts to secure orders far ahead of requirements. The firms which have aimed for continuous production have, therefore, carefully considered the various possibilities of tying the dealer more closely to the firm, so that their interests might be harmonized.

Securing orders well in advance from the dealers can be of great assistance in regularizing employment. An official of the General Electric Company states :

A few years ago it was the practice in the manufacture of electric fans to get started in real earnest about the last of January or the first of February, and the greater part of the year's requirements would be completed by July 1, when the work would gradually drop off, and until the beginning of the new season there would be very little manufacture carried on.

This arrangement, however, has been completely changed and

today we are, practically, manufacturing the same number of fans weekly throughout the year with the possible exception of a little "let-up" during the month of September, but to no such extent as heretofore.

There are several excellent reasons for this change of method. Nowadays, it is customary for the distributors to place their orders for their entire season's requirements in the late fall. Fans are shipped to the distributors so that they may have them in their stocks in time to move them to their dealers, so that the dealers may have the fans in their stocks at the first sign of hot weather, even though it should come during the late spring.¹

1 Establishing Confidence

The first requisite in securing cooperation from the dealers is to get their confidence and good will. The sales manager of a well-known firm that has regularized employment told the writer that about ten years ago he had received an order from a dealer which was four times what his previous maximum had been. Feeling sure that the dealer was too optimistic concerning his Christmas trade, the salesman advised him to take one-third the amount, and assured him he would be able to satisfy his requirements in case this was not enough. When the holiday season was over and the dealer realized how bad a mistake he might have made, he was so grateful to the house that ever since that time all policies of the firm have been given the most sympathetic reception.

Many manufacturers are attempting to make their salesmen advisers to the retailers rather than order writers. By training their salesmen in practical matters that help the retailer to sell, the visit of a salesman becomes a matter of business interest to the wide-awake dealer. Their actions are part of a long-range program of education. By showing a sincere interest in the dealer's welfare in every business contact, and by demonstrating their own fitness to advise him, progressive firms have secured such friendly relations that many of the ordinary problems in securing cooperation have been eliminated.

¹ R. J. Heaney, General Electric Company, in letter September 23, 1921.

2 *Breaking the Traditions of Seasonal Selling*

The changing of an established habit cannot be hoped for within one year. The first attempt to secure orders long in advance of the usual time will prove somewhat of a shock to the dealers, but while opposition may be strong, there are usually a number of dealers who can be persuaded. The second effort finds the dealer more prepared, perhaps more sympathetic, and so on.

An executive of the Ives Manufacturing Company relates that until about twelve years ago the company's salesmen were idle the first six months of the year. When he began his first trip early in June to sell toys to the trade, this experiment was considered a doubtful one because about a month too early. But the success achieved resulted in starting all the salesmen at about that time in the following year. The next year precedents were again broken by moving the date back to March. Even this date was improved upon, and now the firm calls on every customer in town in January. The company secured a large proportion of its orders for the Christmas of 1921 in the early part of the year.¹

Excellent reasons can be used in persuading the customer to order in advance. In the case of the Ives Company, one of the advantages urged is that when the dealer orders right after the Christmas season, all the impressions of the requirements are in his mind. His stock is not yet stored away. He is not likely, therefore, to forget any goods left over, while the recollection of an inadequate supply of some popular item suggests a need that might otherwise be overlooked. The dealer who could not secure some goods he could have sold because he had not ordered in time is cautioned that by delaying he may suffer the same experience during the next holiday season.

3 *Protecting the Dealer Against Price Changes*

The fear of the dealer that by ordering far in advance he may lose because of a possible reduction in prices after the

¹ *Printers' Ink*, August 24, 1922, p. 145.

time the order is placed must be removed from his mind. The International Shoe Company's policy is:

In our business, if prices are reduced, we reduce the prices on all unshipped orders in the house at the time, even though the goods may have been sold originally at a higher price. On the other hand, if prices are advanced, we do not advance the prices on orders already taken. We stand the loss.¹

The prompt action of this company in reducing its prices to its customers, although this meant a difference of \$8,500,-000 in the bills sent out, was mentioned in Chapter V. A similar policy is maintained by other firms.

The exact rule often is not limited to goods not yet shipped, but goes even further. The principle often applies to the time between the acceptance of the order by the manufacturer and the date on which the order is billed to the customer. The dating on the bills for goods ordered in advance of requirements and the arrangements for delivery are especially important elements in influencing the dealer's action. He cannot be expected to be favorable to a plan that forces him to pay out money before he has sold his goods. The salesmen of the United States Rubber Company started out on August 1, 1922, to solicit business for "Keds" tennis slippers for the following year. The special dating arrangement was that the goods would be shipped any time after January 1, 1923, but the bill for them would not be due until June 15, 1923.

The Dennison Manufacturing Company has been specially successful in securing orders far ahead. Custom was so far broken down that a few years ago, by persistent efforts in the jewelry-box trade, orders were secured in November and December of one year for Christmas trade of the next year. This particular case, however, was exceptional and now the solicitation of orders for jewelry boxes begins in January for delivery in time for trade the following Christmas. An official stated that when the attempt was first made to secure orders so far ahead the jewelers "held up their hands in horror," but now about 65 per cent of the jewelry goods

¹ Jackson Johnson, in *Forbes Magazine*, July 8, 1922, p. 327.

bought is usually sold by July 1. This business was originally sold after the middle of the year for delivery in the same year.

4 Price Differentials for Advance Orders

Persuasion may be ineffective in some trades, and the manufacturer who can afford to do so may have to exercise real pressure upon the dealer. The recent move of the American Radiator Company with regard to its jobbers, in charging a higher price for radiators shipped during the busy season, is a most convincing illustration of what may be done by the proper sales policies to improve conditions of production. Early in 1923, a new price schedule was announced to the trade containing relative prices, according to the time of the year. The lowest prices could be paid during the light shipping season—February, March, and April—and the highest were to be during the heavy shipping season—September, October, and November. The differences in these prices were worked out on a scientific basis, with intermediate steps established in accordance with the demand and supply for each period. The price charged is that in effect when the goods are ordered for delivery, regardless of when the order was placed.

The price schedule is shown graphically in Fig. 8, as submitted by the general sales manager of the company. The price of a delivery ordered for September, October, or November is $8\frac{1}{2}$ per cent higher than the price for delivery in February, March, or April. Although there was some apprehension by the firm as to the effects of this schedule, it has proved a wise move. The sales manager relates that the reception of the plan by the trade, by the jobber, and by other manufacturers was surprisingly agreeable, and that "less trouble and misunderstanding has been experienced with the plan than with any other new project of psychological character ever used in the industry."¹

¹ R. B. Flershem, "Sales Research Within the Company," an address reprinted by the American Management Association (New York, 1924), p. 10.

In the first year of this new policy, the effect on seasonal variations was marked. This is shown in Fig. 9, also submitted by the sales manager of the company. The broken line indicates the seasonal variation established in the firm's shipments during the period of the sixteen years prior to 1923. The solid line shows the seasonal variations in shipments during 1923. It is stated: "In the previous years the normal October was four times the normal February in

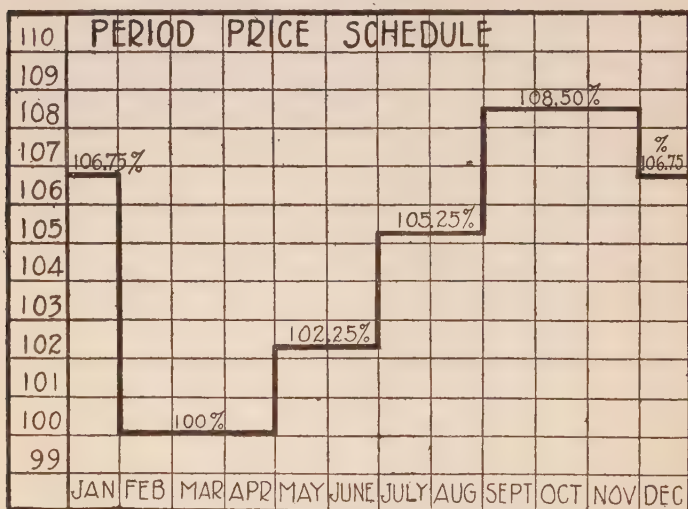


FIG. 8. PERIOD PRICE SCHEDULE OF THE AMERICAN RADIATOR COMPANY

volume of deliveries. During 1923 the volume of deliveries in October was only twice that of February.”¹

5 Dealing Direct vs. Jobbers

Some firms may find it advantageous to eliminate jobbers from part of their sales territories. Up to 1920, the Procter & Gamble Company distributed its goods exclusively through jobbers. The buying habits of these jobbers were exceedingly disorganizing to the factories because jobbers are nor-

¹ R. B. Flershem, *op. cit.*, p. 10.

mally speculators. When they sensed a rise in prices—and such rises were frequent before the war—they stocked up heavily, putting the factories at a terrific strain to produce the required output. When it seemed that prices would fall, there would come a sudden cessation of orders that would last so long as to fill the company's warehouses and force a severe curtailment of production and employment.

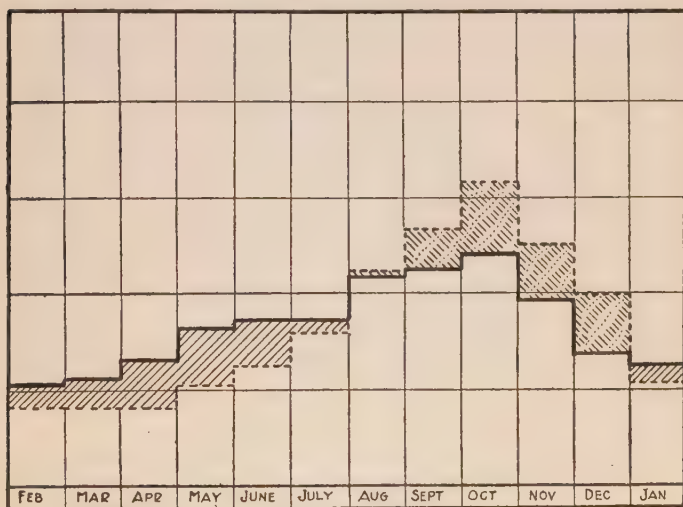


FIG. 9. RESULTS OF ADJUSTING THE SEASONAL VARIATION OF PRODUCTION AND SALES IN THE AMERICAN RADIATOR COMPANY

The broken line indicates the seasonal variation in shipments for sixteen years prior to 1923; the solid line the diminished variation in 1923

Analysis of sales by the company showed that such fluctuations in orders by the jobbers were not caused by fluctuations of demand for soap by the consumer and only in small part by the retailer. Changes in consumption alone would have caused little trouble for the factory, especially if normal growth of population is considered. The company, therefore decided, in 1920, to change its methods of distribution in various parts of the country. Now more than half of its sales are made direct to retail dealers, and the jobbers are less of a dominant factor in disposing of the output. This

made it possible to make accurate advance estimates of probable sales during any year or six-month period, and to operate on this basis.

Dealing direct with the retailers has given the company a chance for some effective educational work making for steadier demand. The firm has encouraged the retailers to buy in smaller quantities but more often, and thus has distributed its sales more evenly over the year, to the advantage of all concerned. At the same time the policy was adopted of not shipping at once the complete quantity ordered by the dealer, when the aggregate sales created a peak load of production, but shipping what he required for his trade and sending him the rest in later deliveries. This saves the dealer the investment of heavy advance payments and the storage of unnecessary stocks, and aids the factory as well. It should be stated, however, that the elimination of jobbers in favor of direct selling to retailers is a move which may be considered desirable for only a limited number of firms, and is probably best for those doing a volume of business adequate to support profitably the proper sales organization. Colgate's, Heinz's and the National Biscuit Company are examples of firms selling direct to the retailer.

In reviewing the success which many comparatively small firms have met in their courageous efforts to modify those habits of their customers which make for irregularity of employment, one is tempted to ponder as to the possibilities of a firm such as the United States Steel Corporation in influencing a more regular demand. The prestige of the firm is great. Its relations with many of the customers are much more intimate because of representation on boards of directors and a general community of interest. Probably it could not only modify conditions for itself, but be a powerful force in the whole movement of deseasonalizing industry.

Some of the problems of securing the cooperation of the dealer and the consumer have been considered. Difficulties exist. But the conclusion which it is certainly safe to draw is that neither the consumer's habits nor those of the dealer have been proved to be so inflexible that they cannot be modified very considerably by manufacturers through the

technique of distribution, if the regularity of employment becomes a matter of serious interest to them.

IV SECURING THE COOPERATION OF THE SALES FORCE

A salesman is an employee of the firm he represents, therefore it may at first seem strange that serious difficulties should be encountered in securing his complete cooperation. In practice, however, the salesman's relation to the firm is somewhat different from that of other employees. His mood is so important in his work, that special efforts, extending even to "stunts," must be evolved to keep him in the right frame of mind. His salary is based on the profits of his sales. He is, therefore, a sort of independent business man, and as long as he is bringing in the orders expected, he is not inclined to brook much interference in what he considers his own province. His earnings may exceed that of all but the very highest executives. A specially important advantage he has as against other employees is his exclusive intimacy with the customer, so that it is embarrassing if he leaves to join a competitor.

The degree of control over salesmen depends upon many factors. The ease with which a product is sold is an important influence in the control of salesmen. If the article is so hard to sell that the dealer must be forced to buy it, the salesman will not be inclined to look with any sympathy on rules that make his problem more troublesome. It is otherwise if through national advertising the product is given wide popularity and the dealers are dependent on the house for their supply. Precedents in an industry also count for much. Where a new method of handling salesmen is opposed by all precedent in the trade, action by an individual firm to reform the conditions becomes a much more serious matter.

In spite of the difficulties involved, good administration and regularization require that sales operation shall be subordinated to the major purposes of the firm. Among the conflicts in point of view which affect the continuity of employment, and which must be controlled, are such elements as the following:

THE SALESMEN PREFER:	CONTINUOUS EMPLOYMENT DEMANDS:
1 Freedom to offer variations in style.	Minimum variation from standards fixed.
2 Freedom to sell anything in the line.	Emphasis on stock goods. Avoidance of too many orders of a seasonal nature. Emphasis on profitable lines.
3 No restriction on maximum amount to be sold.	Restriction in total in accordance with master sales plan. Restriction in amount sold to customer in order not to oversell him.
4 No restriction on minimum amount to be sold.	Restriction on minimum lots in order to avoid irregularities and wastes in production and to make production planning possible.
5 To sell only in season, when selling is customary.	Special efforts to sell off season, and to secure orders in advance, even if this is very disagreeable.
6 Delivery time to suit the customer.	Delivery time that does not cause overtime one month and slack in the next.
7 Choice of customers in territory as long as satisfactory returns from the area are brought.	More intensive development of the territory in the interest of a long-range plan.

1 Educating the Salesmen to the Point of View

One of the first requisites of control of salesmen is their continuous education with regard to the reasons for various distribution policies, so that no feeling of arbitrariness of supervision may stand in the way of their lending their fullest cooperation. This requires the use of bulletins, conferences, letters, conventions, and other devices, and occasional participation in important decisions by the whole group.

In a large candy factory which has secured the cooperation of its salesmen in summer campaigns, every salesmen got a personal letter in which it was explained that the factory intended to keep its chocolate-dippers on the payroll all

summer. The case of the chocolate-dipper was compared with that of the salesman. The firm put the matter in this light:

If the salesman could not produce enough business during the off season to enable the chocolate-dippers to keep working, then why should the chocolate-dippers be laid off without pay and the salesmen be permitted to travel in luxury on full salary? Therefore, if the salesmen expected to draw pay during the warm weather they would have to keep the chocolate-dippers at work also.¹

Much depends on other elements in sales management, such as utmost fairness in setting requirements for the salesmen, and tactful direction at all times. The salesmen should have few real grievances to add to their fancied injustices. The more scientific and intelligent the control by the headquarters organization, the fewer the problems of maintaining leadership in sales operation.

2 Effect of Different Methods of Compensation

Some firms have systems of compensating salesmen which of themselves tend to arouse opposition to the firm's more permanent interests. The adoption of a method of payment which makes cooperation with the firm more profitable than indifference or opposition is, therefore, one of the requisites of sales control.

The most faulty method in this respect is the payment of salesmen on a fixed percentage of the value of gross sales, known as the straight commission basis. The following points show some disadvantages of this method:

(a) It glorifies the volume of sales above everything else. The salesman who thinks of the immediate dollar rather than his future may oversell his customer to such an extent as to cause cancellations and other embarrassments. This disturbs the confidence which the dealer might entertain toward the firm and makes him wary about ordering in advance.

(b) It gives the salesman a strong motive for strenuously resisting every restriction that impairs the ease of selling.

¹ *Printers' Ink*, June 1, 1922, p. 101.

He resents being limited in amount, argues against standardization, and opposes other policies which may give competitors a temporary advantage. He responds less readily to campaigns for selling stock goods or other lines that the factory needs, if these goods are less immediately acceptable to the dealer.

(c) Control over the activities of the salesmen is very much weakened. It makes them unwilling to spread out their work by selling in off season, since in many cases the total volume of sales of the year will not be much higher. Since they measure their activities solely by commissions earned, they are also inclined to "skim the cream" of the trade, omitting to canvass dealers in sparsely settled communities or other small customers, much as the aggregate of such business might help the factory.

(d) The division of territories for intensive salesmanship during the times of business depression is opposed to the extreme when a salesman is on a commission basis. His livelihood seems at stake. He feels that the firm is trying to take away some of his customers just when business is hardest to get. It has been shown time and again, however, that when a firm divides territory and puts two salesmen where only one was before, the more intensive cultivation of the field results in securing more business from the total area divided, often more than twice as much. If salesmen are on a salary basis such subdivision does not arouse much opposition because their earnings are not affected.

The method of payment should, therefore, be readjusted in the interest of greater flexibility of control. A straight commission basis has many defects, but this system may be modified in a way that reduces its disadvantages. The Elliott Fisher Company is said to have achieved "extraordinary success" in summer sales by the payment of extra commissions to salesmen.¹ Various other forms of payment tried have proven successful and the problems of different industries make for continual evolution of new and scientific forms. It is believed generally that payments on a salary basis, coupled with some standard of sales to be reached, achieves a great deal of flexibility of control.

¹ *System*, July, 1923, p. 29.

A stimulating type of payment is one based on the "point" system, which gives more credit or more commission for goods of one type sold than for goods of another, and rewards cooperation. It may prove an aid in steadying demand to give the salesmen additional credit for goods sold well in advance or in off season, for the sale of stock goods, or for goods sold in large lots, and smaller compensation for the goods whose sale is easier and less desirable. This would go further than the mere removal of obstacles to flexibility, for it would supply the salesman with a financial motive for giving his fullest cooperation to the company's distribution policies. It is not intended to espouse any one method of compensation, but to show the need of evolving a method in accordance with the conditions of the industry that will aid rather than impede a firm's program of regularizing employment.

V SPECIAL RETAIL OUTLETS

A movement of significance has been the development of close business connections between important retail outlets and large manufacturers. This has emanated from two opposite sources—*viz.*, manufacturers reaching out to control retail distribution and large retailers reaching back to control manufacture. The possibilities of such integration in so far as production and distribution may be better coordinated makes an account of the development desirable.

1 *Stock Ownership by Retailers*

One of the most striking examples of rapprochement between manufacturer and dealer is the plan for which Mr. Louis K. Liggett is responsible. The United Drug Company, of which he is the president, was incorporated in 1902, for the manufacture and sale of products sold in retail drug stores. The plan on which the company was based provided for the ownership of the common stock by the retail druggists. To each stockholder was to be given the exclusive agency in his district for "Rexall" products, manufactured by the United Drug Company. It has already organized over 8,000 local

stock-holding dealers in this country, and 2,000 more in Canada and England. These may buy from any firm they choose, although the firm may not sell to any other dealer in their districts. The company has also established its own direct chain stores, consisting of some 225 Liggett stores situated in choice locations in large cities.

The firm makes drugs, medicines, rubber goods, stationery, toilet articles, perfumes, dentifrices, hospital supplies, foods, and fruit syrups. It has an eight-story candy plant in Boston, what is claimed to be the largest drug-manufacturing plant in the world in St. Louis, a rubber factory in New Haven, three large stationery plants, and other factories, and it is hinted that some day even the fixtures and furnishings of the stores may be made by the company's own factories. About 5,000 workers are at present employed in these factories and offices.¹

The close relation with the dealer enables the firm to estimate its requirements closely. Orders are quite generally secured well in advance. The opportunity to regularize work in this growing firm is rather exceptional, but whether or not it has been taken advantage of consciously has not been investigated.

The Winchester Company has adopted a similar plan in organizing the local hardware dealers. It is said that Mr. Liggett advised it in this plan. The store which becomes the authorized Winchester agent in its locality agrees merely to give the products of the company preference. Also, the agent purchases in the open market, not from the firm, at least three \$100 shares of 7 per cent preferred stock. There were about 5,600 agents in December, 1923, with 2,000 more on the map of prospects. Service to these dealers is extensive. Constant educational activity keeps up the morale. The company has organized its local dealers into Winchester clubs, usually on state lines, and has even held several national conventions for them. These clubs have been vital factors in the building up of an unusual cooperative spirit. Among the activities carried on are special sales campaigns to eliminate the dealer's usual summer slack, and other helpful efforts.

¹ Information supplied by official in company.

2 *Manufacturers' Retail Stores*

The method of organizing direct retail stores for distribution of the product has been used successfully by a number of manufacturers. The larger ones are growing so fast that facts as to the number of stores are out of date between the time that a report goes to press and its publication. In a book on chain stores published in 1922,¹ which contains statistics of the various chain-store organizations, it is stated that the Singer Sewing Machine Company sells its goods through its own 6,000 stores, located in all parts of the world. In the United States alone it has 1,800 stores. The American Tobacco Company, which may be said to be behind the United Cigar Stores, has an influence over the operation of over 1,500 stores and 700 agencies. The Newark Shoe Company, of Baltimore, Md., has 300 stores; the W. L. Douglas Shoe Co., of Brockton, Mass., has 107 stores, and the Regal Shoe Company has 56 stores. Among the candy manufacturers, Huyler's has 60 stores, while many localized groups are found in New York City and elsewhere.

The power exerted over the consumer and the retailer by such a method of distributing goods could be an aid in a program for regular production. Manufacturers' chain stores are cited for their advantages in the report of the Committee on Waste. A shoe company owning a large number of retail stores is said to be enabled to carry the stock required, and to influence the sales of different styles.² Even firms which do not intend to do their main distributing through chain stores find it advantageous to have a certain number of stores, in order to maintain a more direct touch with the pulse of demand.

3 *Factories Controlled by Retail Stores*

Large retail organizations have reached back to their sources of supply and established or purchased factories or

¹ Walter S. Hayward and Percival White, *Chain Stores* (New York, 1922).

² *Waste in Industry*, *op. cit.*, pp. 141-142.

secured control of their stock. Marshall Field & Company manufactures a number of the products it sells, including underwear, hosiery, towels, handkerchiefs, various kinds of fabrics, bedspreads, blankets, and other items. Sears, Roebuck and Co. operates perhaps a score of factories small and large, making such products as implements, stoves, paint, wall-paper, musical instruments, and shoes, and is interested financially in perhaps a dozen more.

The entry of chain stores, retailers, and mail-order houses into manufacture has not always been marked by success. Merchandisers usually do not have the genius for production. Some of these factories have been given up because, for example, the type of labor in a clothing factory cannot be handled in the same way as the clerical workers and order fillers in a mail-order house.

Nevertheless, it should be easier to maintain regular production in a plant so closely connected with its retail outlet than in a firm which is uncertain of the sales requirements. It is a fair supposition that the stores will try to keep the factory busy all year making the kind of products they can sell. That supposition, however, assumes an appreciation of the economy of such operation and a desire to maintain regular employment. Some years ago a mail-order house of Chicago manufactured eight or more lines of articles of women's wear and disposed of the product through its mail-order channels. It is stated that this mail-order house naturally found itself in a position where it could to a significant degree influence the demand. It was thus relieved of the uncertainty of disposing of the variety of things it manufactured. As a consequence, employment in this establishment was rather evenly distributed throughout the year.¹

4 *Growth of Chain-store Organizations*

If there is any likelihood of closer coordination between the retail outlets and the factories, the wide extension of chain-store organizations is encouraging. The credit for founding the first large chain of stores is said to belong to

¹ U. S. Department of Labor, Bulletin 183, *op. cit.*, pp. 94-95.

George H. Hartford, until his death the president of the Great Atlantic and Pacific Tea Company, which may be dated back to 1859. In December, 1922, an officer of the firm told the writer the company had over 7,000 stores and now it is said to have many more. The company manufactures some of its products, but purchases the bulk of its merchandise. The F. W. Woolworth Company dates back to 1879. It now has about 1,200 stores, with at least one in every town containing 8,000 inhabitants or over.¹ The J. C. Penney Company, organized in 1902, operates 313 stores selling men's and women's clothing, in 27 different states, and is expanding at a rapid rate.²

A survey of the chain-store business in the United States announced in October, 1924, by the New York Trust Company, states that more than 8 per cent of the retail trade of the country is done by such stores. The bank places the number of chain stores at 60,000, comprising 2,000 separate chains. Individually the chain stores make huge purchases. An account in the *New York Times* states that for the single item of shoes, Mr. J. C. Penney recently issued a check of over \$1,600,000, covering only a part of the company's purchases from one of the shoe-manufacturing concerns with which it deals.³

The enormous purchasing power of the large merchandising chains makes it exceedingly unfortunate that their influence is not used towards stabilizing demand in the factories with which they deal. With such a volume of goods, could not the sales of a considerable number of manufacturers be a matter of greater certainty? Unlike the problem of dealing with many small independent stores, every local manager of a chain store need not be convinced individually of the need for reducing excessive variations of products or ordering his goods earlier. A buyer for a chain store who cooperates with the manufacturers by ordering his requirements well in advance speaks for as many as hundreds of stores at a time. Factories want orders so given and orders for stock goods.

¹ Hayward and White, *op. cit.*, p. 20.

² *New York Times*, July 23, 1922.

³ *Ibid.*

And although the small stores may not like it, chain stores which use factory's slack periods can secure terms which represent the lowest prices that a firm can offer. But it cannot be said that the large chain stores have shown interest in the subject of regular employment.

CHAPTER IX

SOME IMPORTANT PRINCIPLES OF SCIENTIFIC SALES PLANNING

THE discussion of the various aspects of sales planning thus far suffers from a serious limitation. The various topics have been considered without reference to a well-coordinated plan to control the various activities. In order that output may be laid out as equally as possible over the twelve months of the year, there are intricate problems of coordinating sales and production which must be solved. Some of these problems need now be discussed.

This chapter outlines what may be considered the vital part of scientific distribution engineering. It shows some of the technique necessary in applying the results of sales research to secure an even flow of work at the same time that all problems arising from conditions in the outside world, in the factory, or in the sales organization itself are taken into account. The two main principles considered—the adoption of long range plans of business expansion, and the use of an annual master plan for operations from month to month, constitute the administrative basis of controlling demand.

I LONG-RANGE PLANS OF BUSINESS EXPANSION

There is a possibility that after an estimate of probable sales for the year is drawn up, an opportunity develops for the firm to secure a total volume of orders far in advance of its requirements, perhaps far ahead of what it may normally expect. This is aside from the question of an excess of orders in some particular line only, to be discussed later. Should the firm revise its whole plan to take all the orders it can get, or should it accept only that part of the new business which is in line with an established expansion policy?

At first thought it may seem strange to raise such a question, for it is assumed that all business men are out to make all the profits they can. The issue has a practical value, however. Even from the standpoint of profitable operation alone, the modern business administrator can distinguish between the profits of a single year and the more certain profits of a longer period. Expansion of business makes it necessary to purchase new machines, perhaps to construct a new plant, certainly to train more workers, to borrow more money, and to add many overhead expenses. These charges would prove to be burdensome should the augmented demand prove merely temporary and the volume of orders suddenly shrink. Is it, therefore, so certain that all expansion is desirable in the long run?

In boom periods there may be an apparent inundation of orders and yet the demand may be illusive and artificial. A certain clothing company claims that at the height of the season in 1919-20, customers who normally ordered \$5,000 worth of goods submitted orders totaling \$25,000. The firm did not, however, count upon more than about 65 per cent of these orders. Instead of losing money by restricting its sales, this conservatism proved it in good stead.

For a firm to be trailing its volume of orders has many business advantages. A firm which is producing 100 per cent of the orders received is likely to suffer considerably if there is 35 per cent reduction in demand, while, if a firm's orders are 130 per cent of its actual output, a 35-per-cent reduction in its sales possibilities will not affect its production seriously and it can use its facilities with greatest efficiency and lowest cost. This situation has other advantages. As the firm is in a position to maintain a more independent attitude with regard to its customers, the credit department may be more critical of accounts of doubtful reliability, the sales department may refuse to accept an order calling for variations in style not in line with the company's policy of simplification, and other desirable policies may be carried out.

One of the vital reasons for the success of a large paper-novelty firm in securing orders from its dealers far in advance of actual need is found in its conservative expansion

policy. The firm sells out its factory capacity for its Christmas and holiday lines almost every year. The dealer who orders late cannot secure his full order, or perhaps his order may even have to be declined. The disciplinary effect of this is excellent. The dealer realizes the factory problems involved, and the disappointment he experiences makes him understand the need of placing his orders well in advance.

There is also the advantage that some of the effort that would be devoted to securing new business could be better used in taking care of the old. An increase in efficiency, instead of mere increase in size, may not only serve social ends better, but also bring more profits to the firm. Some of the human elements in securing efficiency while expanding offer stubborn resistance to hurried progress. Executives cannot leap into larger responsibilities without development. A plant morale, so valued by firms which aim to maintain harmony in industrial relations, will not be at its best when the firm's payroll is subject to fluctuations that produce an ever-changing labor force.

One of the incidental but important advantages of the long-range point of view is the ability to profit by the postponement of new construction to times of low prices, which are usually during periods of serious industrial depressions. The Hickey-Freeman Company began the construction of a new wing to its factory during the business depression in 1921, and a prominent paper concern has for some time been guided by a similar policy. If a larger number of firms were to act on the principle, business in general would be made more stable. The extremes of cyclical fluctuations would be reduced at the same time that the firms involved would save a good deal of money.

There is no gainsaying certain disadvantages of passing up business, but these disadvantages should not weigh unduly heavily in the balance. It is not expected that the policy will be adopted by plants which are not using their facilities fully and are in need of additional sales. It is not necessary to turn down customers in all cases, but to scale their orders down when possible—a policy which may be to the advantage of all concerned. The best and most permanent part of the trade need not be affected at all. With

regard to the others, the opportunities afforded to competitors is an important consideration mainly where a firm is attempting to dominate the market and to keep other firms from entering the field, or where very strong rivalry exists. In such instances the disruption of schedules because of the desire to conform to the market is sometimes a sacrifice in the cause of armed offense.

In any event, it is certain that the adoption of a plan embracing at least a theory concerning the next five or ten years, plays an important part in the success of a firm's program for regularizing employment. The business which has no plan, but merely secures all the orders it can, will not have enough of a perspective of its progress to prevent violent fluctuations of production. A fortunate turn in the market will bring a sudden deluge of orders which arouses unjustified confidence and leads to an augmentation of labor forces unjustified by the permanent prospects. The business institution which has carefully analyzed the market, critically estimated its chances of development, and developed a scientific plan of expansion most wholesome for its purposes, will have made a great step forward in the achievement of steady operation.

In one other respect a long-range plan is particularly helpful. Various elements of the program of securing continuous operation involve expense and discouragement, but if they are considered with respect to the prospect of ultimate achievement, they are seen in a more hopeful light. The efforts to reduce the excess of style changes, for example, are much more apt to meet with success if the problem is wrestled with over a prolonged period. The development of export outlets is seen in its proper place in a long-range plan. As one after another of the complexities simplifies itself, a feeling of mastery of the situation makes management approach the customary difficulties of the industry with confidence. The firms which have made the greatest progress in regularization of employment have maintained a policy of conservative growth.

The Dennison Manufacturing Company has for many years had the opportunity of substantially increasing its sales to the dealer and the consumer. There are many lines in

which it has not entered but in which its reputation would insure immediate success. Its sales research has revealed numerous marketing possibilities. But every officer of the firm with whom the writer discussed the subject expressed the belief that a firm should not grow too fast. The company has set for itself a plan of increasing its basic output to the public at the rate of approximately 8 per cent over that of the year previous. This is one of the considerations in the drawing up of the annual master plan, and it is an ever-present factor in the administration of the business. Fig. 10 illustrates its growth since 1894.

The late Mr. Jacob Freeman, treasurer of the Hickey-Freeman Company, informed the author, in 1922, that for at least ten years the firm has not completed the orders offered it, and even in 1922, when business was not good, the spring delivery was only about 95 per cent of the net sales.

The Joseph & Feiss Company was for many years especially conservative in its expansion policy. Before 1921, when the factory was greatly enlarged, the production of the company had for many years been behind the sales possibilities. The most severe kind of pressure had been exerted by the sales force to increase plant facilities. But the company considered continuity of employment a fundamental requisite of industry. Because it was not certain that the salesmen would be able to dispose of the full output of an enlarged plant during bad times, it long resisted a step which might have endangered the maintenance of its policy.

Even the Ford Motor Company urges inhibited expansion. Mr. Henry Ford stated in April, 1923, "We have never yet come to the full height of the demands made on our production, and it is my opinion that unless manufacturers generally adopt the policy the country may have serious cause to regret it."¹

II COORDINATION THROUGH THE ANNUAL SALES PLAN

1 What the Annual Sales Plan Requires

The long-range point of view discussed supplies the general guide for current policies. It represents an ideal. The

¹New York Times, April 25, 1923.

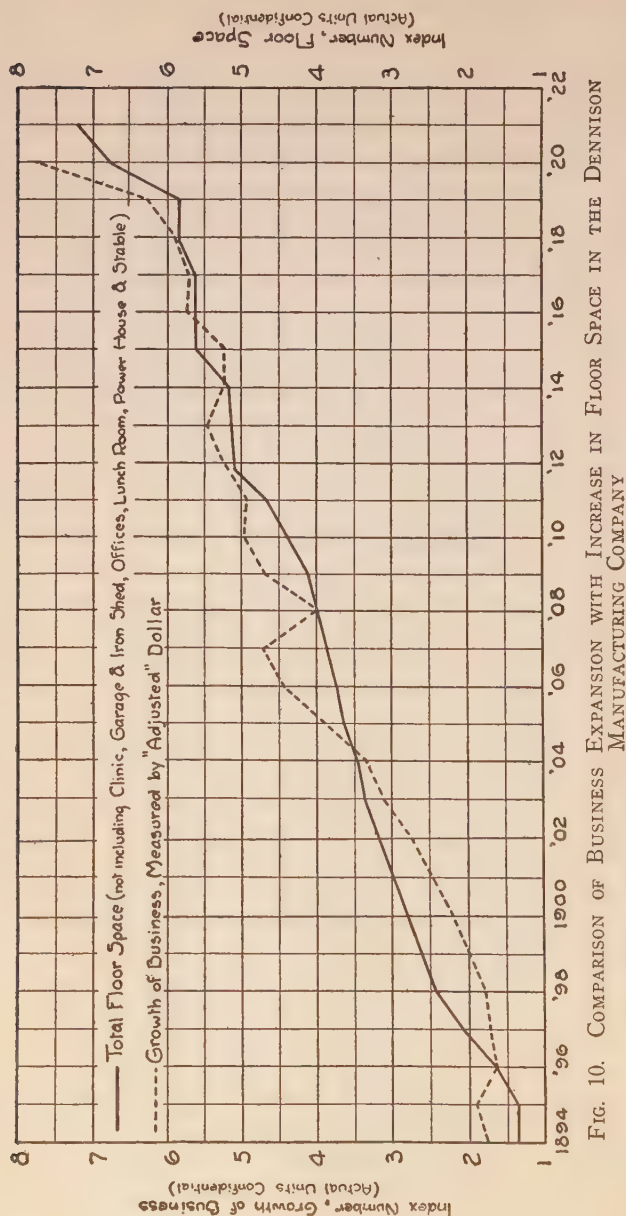


FIG. 10. COMPARISON OF BUSINESS EXPANSION WITH INCREASE IN FLOOR SPACE IN THE DENNISON MANUFACTURING COMPANY

The line of physical expansion (floor space) shows a gradual and consistent increase little affected by the momentary fluctuations of business. The latter is measured in "adjusted" dollars, to correspond to changes in prices

extent to which that ideal will be realized is determined to a great degree by the efficiency of the organization in its activities month by month and year by year. This, in turn, depends on the most careful planning ahead for a limited period, coupled with the measurement of achievement against expectations. An annual sales plan of the type to be described serves to substitute operation in spurts and starts, following the erratic flow of orders, by a program in which the various items in the year's output are integrated in a schedule allowing for the most continuous work attainable under the conditions.

Sometimes it is too difficult to make such a plan for a full year ahead. In many firms, especially those in style-bound industries affected by a peak demand twice a year, a plan projected for perhaps only six months ahead has been used successfully. The unit of time most desirable for the more exact planning of business activities is, for many reasons of convenience, the calendar year. The period is not only the basis of much of our thinking, and of government taxation, but is long enough to allow for the averaging of production, for the completion of long processes, for the absorption of temporary setbacks, such as breakdowns in machinery, epidemics, or vacation periods, for the arrival of purchased equipment and other elements of a representative business program.

The prelude to the adoption of the annual plan is the most careful estimate of sales possibilities for the twelve-month period, based, as has been explained, on the most exacting research into past records and market conditions. If the total of such sales possibilities represents an unwholesome manufacturing diet, the annual plan should correct it if possible, or start a train of influences at work which will correct it in time. If the estimate shows that the available business will be far in excess of factory capacity, it may be deemed undesirable to expand facilities to the extent required to meet the full demand. If the estimate contains a good deal of uneconomical production, such as too many specials, too many variations in model, too many peak loads of seasonal products coincident in time, or other factors making for discontinuous operation, the question as to whether the pro-

portion of sales of certain items shall be limited or not, and a drive made on other items, becomes a matter for decision in the adoption of this master sales plan.

In one firm the advance estimates of output are drawn up as follows: Each item in the line is considered one at a time at a conference of executives, and the quantities to be produced determined by agreement. The sales department may want to include a small amount of a certain item. The manufacturing department objects because the quota is reduced below the amount which would make the operation of a certain machine profitable. It thus forces the sales department to choose between raising the amount of this item and disposing of it, or, if the obstacles are too great, dropping it altogether. On the other hand, when a product is best manufactured on a large-scale basis, the sales department may refuse to include the full amount because of the difficulties involved in selling it.

2 *What the Annual Sales Plan Represents*

The result of thus bringing to bear upon the sales estimate all the factors affecting continuous, economical, and desirable production is to make the total output agreed upon the approximate ideal for the particular conditions. If the annual master plan is intended to represent the most harmonious adjustment possible between the various factors involved in economical operation and successful distribution, it should be the controlling force in the work of the departments dealing with sales, production, advertising, finance, personnel, and the other functions of the firm.

In practice, selling difficulties may make it necessary to deviate greatly from the desired sales, but the greater the control of a firm over its distribution, the more unity is secured between what the firm ought to sell and what it actually does sell.

The sales plan of any one year is usually defective as compared with the type of sales plan likely to be in vogue years hence. This is especially true where this method of conducting business has been recently introduced in the plant. At any one time the sales plan represents only those

improvements which were practicable up to that period. If additional steps are taken each succeeding year, these steps will ultimately lead to the most advanced program attainable. For the most desirable results it may take seven years or more. But the results will be found worth the persistence.

3 *Use of the Plan in Planning*

To allow for adequate preparation of manufacturing facilities and personnel, the plan for the ensuing year is often presented many months ahead. One sales executive stated some time ago: "It has been the custom for the Winchester Company for many years to tell the factory on the 1st of July of any year exactly what they are going to want on every item for the following year, beginning with the 1st of January."¹ In the Dennison Manufacturing Company a similar plan is followed. On June 1 of every year the Merchandise Committee gives the factory an estimate of production for the whole of the next calendar year. Thus, on June 1, 1923, the estimate of requirements for the year of 1924 was given. Every department knew how much of various stock items it was expected or allowed to make for the nineteen months included between June 1, 1923, and December 31, 1924, and thus knew what facilities it had left for the manufacture of specials.

The control over distribution in the Dennison Company has become so effective that planning ahead does not merely limit itself to the requirements of the next calendar year, but may be projected even two or three years ahead for certain items. A striking example of planning far in advance of production or sales is seen in the accompanying schedule for the company's 1923 Christmas line, which represents the usual scheduling of Christmas goods two years ahead.

April 1, 1921—The Holiday Committee began to assemble sketches and new designs for the 1923 Christmas line.

Sept. 24, 1921—A meeting of the Holiday Committee was held to decide on the full line.

Oct. 24, 1921—This line was submitted to the main Merchan-

¹ W. E. Freeland, *Taylor Bulletin*, October, 1920, p. 217.

dise Committee for its suggestions and approval and the styles finally determined.

Feb. 1, 1922—The full order for every item in the 1923 Christmas line was approved and submitted to the factory, as a basis for immediate preparation of facilities needed and for the purchase of materials.

August 1, 1922—Every die for the goods was made and a full sample layout was ready.

Oct. 15, 1922—Price-list layout was ready.

Nov. 15, 1922—The line was launched—that is, forwarded to salesmen for submission to customers immediately after December 25, 1922.

Sober judgment is, of course, essential in determining such a plan. Too great optimism, in place of cold calculation of probabilities, may make the plan a stimulating ideal to strive for, not a working arrangement. It has been shown that a conservative policy of expansion, as a result of which a firm is always trailing the sales, gives greater assurance that the year's quota will be reached. Where distribution technique is excellently developed, sales plans are realized in fact.

An advance plan should not, however, be a rigid scheme. If compelling reasons for modifying the plan should arise, nothing would have been lost in using that plan as a basis for action. Current experience is used to correct and revise the sales estimates when necessary. The check-up is customarily made just previous to the time manufacturing orders are given to the factory for specific quantities of products. These releases may be made quarterly, bimonthly or monthly, in accordance with the conditions.¹ Flexibility is thus secured in the plan, and action too far in advance prevented, because actual monthly requirements released to the production departments give a chance for readjustments in volume.

A word of caution is necessary here. While modification of a master plan must be provided for, the fact that such a plan is intended to represent the very best compromise

¹ For a detailed account of the method of scheduling in the Denison Company, and other facts concerning the firm, see the articles on the subject by the author in *Industrial Management*, August, September, and October, 1922.

between sales possibilities and the requirements of economical operation, and that it may have involved advance commitments, makes it essential to good planning that the firm acquire the habit of adhering as strictly as possible to the estimates agreed upon initially. The respect thus secured for the master plan will give a preciseness to the firm's planning of future projects that should prove invigorating, and will inspire it with increasing confidence in its ability to control its circumstances.

4 Coordinating Sales and Production

The two main sources of danger to an annual sales plan are that the factory will fail to produce the output needed and that the sales department will fail to produce the orders in the proportion set. The first possibility is an intra-plant production planning problem and is considered in the next chapter. But some of the dangers besetting the success of a master plan because of sales defects properly belong here. Among the most common sales problems are the following:

(a) The sales department finds it cannot sell as much as it had anticipated. It wants a lowering of the total production agreed upon previously.

(b) The sales department finds it can sell a much larger total volume than was anticipated.

(c) The sales department finds that it can sell more than planned of some items and less of other items.

(d) The sales department secures the required orders, but the delivery dates promised to customers do not allow for economical production.

(a) The means of preventing the first possibility need not be considered fully because the line of attack on such a situation has been indicated. If the original plan has been conservatively estimated, especially in the light of changing phases of the business cycle, if research as to new uses, new markets, etc., has been thorough, and if vigorous sales efforts are made, the sales department should be in a favorable position to dispose of the required volume. If not, then a new estimate should be made and operations re-adjusted to the revised master plan.

(b) The second possibility need also be touched upon lightly. It has been made clear that a policy of wholesome expansion often has advantages, and that sudden expansion may bring many difficulties. With some of these considerations in mind, the firm may decide whether it wants to revise its master plan upward or not, but this should not be a temporary yielding to a demand that may be artificial. Modifications upward should be considered with the greatest of care, and coordinated with a consistent long-range policy in order to avoid over-optimism. A successful automobile manufacturing company, at one time operating under strict scientific management, decided at the beginning of the year the number of cars that it could surely sell and which it could make in the most economical manner. Having once determined the amount, it refused the extra business, on the assumption that it would find the economies of adherence to production schedules more profitable than readjustments of schedules to accommodate extra trade.

(c) The third possibility—that the sales department finds it easier to sell more of some items and less of others—is the normal experience endangering a schedule. It is worthy of special attention. Some of the real problems of co-ordination are involved. Often strong power must be exerted to maintain the schedule in balance. For if the master plan represents economical production, the chance variations resulting from the success of the salesmen in selling various items are likely to throw the factory out of balance and cause much irregularity of work. The salesmen may want to surpass the quota in items which would force a peak load of production on the factory, or they may be inclined to slight stock items so helpful in maintaining continuous production. The failure to sell the set quotas may leave specialized machines and employees in idleness, while the sale of other items in excess of plan may necessitate the purchase of special equipment for the production of a passing fad.

Two examples will show the importance of this element in the coordination of sales and production. S. L. Allen & Company, which added the "Flexible Flyer" sled for summer production as a supplement to its regular line of farm and garden implements, has frequently been faced with

fluctuations in the demand for this side-line. It has had to adopt the policy never to expand the plant to take care of increased demand for sleds until there was a corresponding permanent increase in the output of its sale of farm and garden tools.¹ In the Dennison Company the Christmas greeting cards created a similar problem. The main reason for manufacturing them is to make them provide a side-line activity for filling in slack seasons or idle time in engraved printing work, but the salesmen took to the sale of these cards with such enthusiasm that the company was threatened with the possibility of having the "filler" itself create a condition of peak seasonal production. Against the vigorous opposition of many salesmen the firm called a halt to the sale of Christmas greeting cards. Although the firm believes it can sell five times as many Christmas cards every year as it does, it refuses to unbalance the master plan and restricts the amount of the item to be sold.

That problem, and the need for the power of deciding upon withdrawal of an item, was impressed upon the author by various business executives as one of the biggest elements in distribution engineering on the basis of master plans. It is comparatively easy to set up within a plant an organization for distribution engineering to determine when sales activities shall be promoted, but it requires considerable power to enable such a body to exercise the right successfully of saying "Stop!" to an eager selling force. The person heading up the distribution engineering must, therefore, be the "big man" in the firm, able to assume the fullest authority, and endowed with the poise and restraint necessary to see current conditions in their true perspective. Such an official may be able to prevent a firm from going to extremes in a period of "booms," and may curb the use of the surplus of ideas characteristic of those times by reserving them for periods of depression or when otherwise more needed.

Firms which aim for continuous and economical production try as far as possible to achieve the state of being able to make their products first, then selling what was made, rather than waiting for orders entirely. In one firm which tries to observe this policy of "Make, then sell," when 85

¹ *System*, August, 1923, p. 215.

per cent of a certain item in one of its lines of goods has been sold early in the selling season, the assumption is made that the orders for the other 15 per cent of the popular number are in the mail, and the item is likely to be withdrawn. The salesmen are thus forced to dispose of the other items. The Winchester Company also occasionally has to call the salesmen off on a popular article. The power is, therefore, seen as an essential in the preservation of the integrity of the master plan.

If the sales of an item are falling behind, there are means of bolstering them up. Special sales contests with this objective may be evolved. When a firm knows its production requirements well in advance, such sales contests can be planned far ahead. Advertising, mail-order campaigns, and other publicity efforts might well be worked in where their pressure would be most effective. Thus the master sales plan becomes the coordinating force of the whole enterprise.

(d) The question of delivery dates is one involving the handling of the dealers and the salesmen and has been treated in Chapter VIII, along with allied problems.

III NEED FOR GREATER COOPERATION BETWEEN BUSINESS DEPARTMENTS

The proper coordination of sales and production involves a degree of cooperation between the various departments which does not often exist today. Frequently it is the sales department which dominates the factory, but in not a few instances the opposite is the case. An illustration of lack of coordination is a certain firm with a pronounced seasonal peak in demand. Advertising is carried on most vigorously at the times when demand is heaviest. The advertising man considers himself and is considered by others a genius. Nevertheless, executives disagree with the advertising department in the existing practices concerning seasonal advertising, but as no department is supposed to "interfere" with the work of any other department, the condition continues.

Such lack of organization for sales planning is a most serious handicap. Policies involving the distribution problem should be based on the consideration and assent of all

the major departments. The views of the heads of each of these departments affected must be brought to bear on future projects and a common plan agreed upon, based on the best interest of the firm as a whole, rather than on the desires or conveniences of a department. The plan in vogue in some firms of having the chief departments represented in a committee, meeting regularly as the coordinating agency for the whole business, thus has considerable merit.

A good example is the Merchandise Committee of a progressive New England concern, which includes the merchandise manager, the factory manager, the purchasing agent, and five sales managers in charge of distributing the products made. This Merchandise Committee is the coordinating force in distribution, controlling the operations of other departments and subordinating their activities to the good of the firm as a whole. The Merchandise Manager, who is the chairman of the committee, is not the representative of any departmental interest, but is a neutral official, whose responsibility is that of seeing that the master plan and the policies of the committee are enforced in practice. He represents the planner in distribution. The sales managers are in charge of the making of the sales—a distinction of considerable importance.

The coordination of sales with production is not the final end of good administration, for they are not the only two things to be coordinated. To secure a really smooth operation and really effective control over the activities of a business, all elements—purchasing, bank loans, payrolls, and all other activities should be laid out on a monthly budgetary basis. But a detailed discussion of budgetary methods would take us too deep into the principles of executive control and management for our specific purpose. It is enough to state that methods for coordination of sales and production bring a business in line for more advanced types of administration at the same time that they assure steadier employment.

CHAPTER X

PLANNING PRODUCTION WITHIN THE PLANT

I EFFECT OF POOR PRODUCTION PLANNING UPON EMPLOYMENT

THE assumption in foregoing chapters has been that when once the annual demand has been determined and sales are kept up to expectations, the production of approximately one-twelfth the amount per month is assured. This is not necessarily the case and much irregular employment may exist. Poor organization of production in the factory, can, and often does, nullify the advantages of scientific control of demand. To avoid alternations of rush periods with slack times for the plant as a whole or for departments within the plant, all the activities of the year must be integrated in advance in a production schedule allowing for an even flow of work.

Although planning of production is indispensable in efficient management, many plants have not given the matter adequate attention. In some a good deal of scheduling is forced on the foremen. These lack a comprehensive knowledge of the output expected during the whole year, and they take pride in getting things out promptly. The result is a rush of work at one time, followed by a slump later that is greater than would have occurred under proper methods of control. In one large shirt and collar factory the manufacture of some items, such as soft collars, is sometimes suddenly pushed for two or three weeks at considerable speed and with much overtime. Then production is slowed down and many employees are laid off. The employment executive is convinced that this kind of manufacture could be eliminated by better planning.

Many illustrations of poor planning resulting in irregular employment could be given. A recent detailed survey of

representative plants in a number of industries says that "The lack of adequate methods of production control is evident in every industry studied. It is one of the outstanding weaknesses."¹

The difference in the effect on employment between inefficiency and good planning may be illustrated by a rather remarkable instance presented in a report made some years ago. A firm whose name is not given had factories which employed over 10,000 persons. The normal period of unemployment in this industry prior to definite attempts to regularize it was from twelve to twenty-five weeks. More than half of this was due to seasonal changes. After improvements in sales technique were instituted, a manufacturing policy was developed of maintaining a standard daily production, based not on the amount of orders on hand, but on plans previously drawn. As the result the payroll from January to December in some of the factories did not vary as much as one per cent!²

II TECHNICAL REQUIREMENTS OF GOOD PRODUCTION PLANNING

Although the average person sees the advisability of planning production in advance, what such planning actually implies is not fully realized. Real planning is a highly technical process, and is associated only with highly developed management. When a firm manufactures a large number of products, every one of these products cannot be budgeted on an even monthly basis of one-twelfth the annual output, even though they be stock items. Many of the products are likely to have sharp peaks of demand occurring at different times of the year. It may be uneconomical to manufacture some items too far ahead of need. Nor can any one item be planned independently of the others.

The problem is to coordinate the various requirements for different lines so that production as a whole may be even. The solution may be to reserve a certain period for

¹ *Waste in Industry, op. cit.*, p. 12.

² New York City, Mayor's Committee on Unemployment, *Report*, 1916, p. 63.

one group of items, with minimum production of the other products, and to reverse the schedule at other times. Such a method was used in the illustration which follows, reported by an industrial engineer who introduces his account by stating that accurate planning to distribute the demand over the production year "nearly always works wonders."

A manufacturer of household specialties made 1,500 articles which, though staples, showed surprising seasonal variations in demand. The total sales of the firm for the four quarters of the year were approximately 20,000 pounds, 8,000 pounds, 10,000 pounds and 30,000 pounds, respectively. Production was carried on in accordance with this demand, involving alternation of intensive production with partial shutdown, and all its wastes.

The manufacturing operations were improved in the following manner: The shipments of each item month by month during the five preceding years were studied. The articles for which demand was fairly uniform were scheduled on the basis of certain maximum and minimum reserves, in terms of number of days ahead, according to expected demand. These reserves varied in keeping with the needs of production. If the factory was slack a larger reserve was manufactured; if the factory was busy with the more seasonal items, only enough to have the smaller reserve was produced. The seasonal goods were planned in such a way that they might, as far as possible, be made when their manufacture dovetailed into the general production scheme and yet be on hand when needed.

As a result of analyzing every item in this manner, the following schedule could be drawn up:

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Sales.....	20,000	8,000	10,000	30,000
Production.....	18,000	15,000	15,000	20,000

Instead of severe fluctuation in production, ranging from 8,000 to 30,000 pounds, in accordance with the sales, the

schedule varied only from 15,000 to 20,000 pounds, and other articles were so put into manufacture as to keep a practically uniform factory output during the entire year.¹

When so much analysis is required for scheduling staple goods whose total volume is small, it requires much finer technique to plan the manufacture of automobiles, printing presses, or other complicated machines, with hundreds or even thousands of parts. Add uncertain market conditions and a large proportion of jobbing or special orders, and numerous technical requirements are implied in effective production scheduling. Scientific scheduling seems perfectly impossible at first glance and a thousand difficulties can always be pictured. But, like flying or wireless, it always yields to bit by bit study—and it pays.

One of the first requisites is that every order to be worked on must be analyzed in detail, so that the sequence of each operation may be determined with exactness. This makes it necessary to know how long it will take for each of the component parts to be made. As a foreman's guess does not make for accurate scheduling, actual measurements through time and motion study may be required to determine the amount of time necessary for each operation. In this way the standard hourly production to be expected of each worker and the actual average efficiency may be established. This in turn requires that methods, appliances, and conditions of work should be more or less standardized.

The fitting in of the order to existing conditions then involves special problems. Taking the date on which delivery was promised to the customer as a starting point, or preferably one somewhat earlier, so that delays due to emergencies may be avoided, the scheduling works backward through each major assembly and minor assembly. The date of completion of each of the thousand and one parts, processes, or activities must be adjusted to the starting time of the operation ahead. Other orders, however, have probably already been scheduled and have preempted the use of certain machines at various times, so that the adjustment may involve changing former schedules. The preparation of drawings,

¹ William R. Basset, *When the Workmen Help You Manage* (New York, 1919), pp. 149-151.

tools, jigs, materials, etc., must be intelligently planned in advance so that the production schedules will not be hindered and steadiness of employment interfered with by the unavailability of these essential elements of operation. Management must also try to foresee the delays in the arrival of goods, facilities, or other requirements.

If not guarded at every step, therefore, the production schedule may easily become a mere paper plan of operations. Numerous conditions in the factory and in the business as a whole tend to break it down unless it is constantly the object of executive attention. Machine trouble must be reduced to the minimum. Leeway allowances for such accidents are necessary, but if they are too liberal, planning becomes too indefinite. By itself the schedule is merely the coordination of the information which analysis has revealed concerning the possibilities of future production.

For the best results a special production planning executive or department is required, depending on the plant. No predictable disturbances should be allowed to interfere with the planned course of production, and the actual output of the day and the week must measure up to the plans made. In some plants output is watched by the hour. If production is below the standard determined, it is the function of executive control to get at the cause, to make it possible to catch up with production and attain the standard, or, at the least, to make sure that the same cause will not operate against the schedule in the future.

Mechanisms or devices of aid to the executive in securing such control have developed a literature of their own.¹ No

¹ Among those which may be mentioned are the charts which Mr. H. L. Gantt, the noted industrial engineer, developed. In *The Gantt Chart*, by Mr. Wallace Clark (New York, 1922), the author expresses his conviction strongly that the principle of the Gantt charts is the most notable contribution to the art of management made in this generation. Work planned and work done are shown in the same space in their relation to each other and in their relation to time. Collectively, the various Gantt charts show up when equipment is not being used and the reason for idleness. They compare the work of individual employees with the performance standard, and, if this standard is not being met, indicate who is responsible for removing the obstacles. By showing the load of work planned for the whole factory, they give a continuous comparison of performance with

attempt will be made here to describe or review the approved devices. That is a more technical problem of management. It may be mentioned that the desirability of reducing facts, figures, and important reminders to a simple graphic form, appealing at once to the eye, has become widely accepted.

III HOW PRODUCTION PLANNING AIDS IN REGULARIZING EMPLOYMENT

Scientific production planning has numerous advantages. It gives the opportunity to collate orders and, therefore, to reduce unit costs. The time of production is shortened, which allows the firm to double or triple its stock turnover during the year or to get out the required annual production by use of a smaller plant working at full time. In this way overhead costs are reduced and other savings effected. Aside from these matters of a general business nature, the close relation between technical planning of production and the regularization of employment is borne out by the following points:

(a) Production planning enables the executives to have the best available knowledge as to how long ahead the orders on hand will last and how busy the various facilities will be. The firm can thus more effectively direct the efforts of the sales department, and, by calling for more business in certain lines, adapt orders to continuous operation. Closely related to the above is the fact that the availability of a picture of the conditions of production months ahead enables the firm to know whether or not it will be advisable to try to get business at cost or at a loss in order to keep the factory busy, and if so when it shall get such business and how much of it will be needed.

(b) The better knowledge of work ahead makes it possible to know what delivery dates can be promised. Thus the firm may avoid the acceptance of orders that will lead to rush and overtime work. This is one of the effects secured

schedule and make it possible for an executive to foresee future happenings with considerable accuracy. Among those who testify to the use of the Gantt load chart, one executive shows what astonishing progress in continuity of operations it enabled his plant to achieve.

by the W. F. Hall Printing Company, Chicago, which began the installation of a scientific system of planning and production control in 1920. Its work may be divided into two major groups—monthly and seasonal. The first group consists of monthly or weekly periodicals, the second of catalogues and other matters usually printed in the spring and in the fall. By planning, however, work is laid out in six months' periods, and the planning is undertaken even before the actual matter to be printed arrives. By working back from delivery dates, the firm can advise the customer definitely when he must deliver copy, plates, cuts, or paper stock.

The value of such planning in reducing seasonal differences is seen in the fact that one department which normally dropped to 20 per cent of capacity during the dull season operated at 90 per cent of capacity during the dull season in a year of depression. An executive of the firm, reporting the results, states:

One of the most gratifying results we have had from scientific planning of production has been the ironing out to a considerable degree of the seasonal curve. . . . Scientific planning has resulted in greater efficiency in every department of the plant proper, has made the work of the sales department more effective, has produced a coordination of all departments that was impossible before and has created better satisfied customers by preventing us from promising the impossible and enabling us to deliver as per contract.¹

(c) The policy of manufacturing for stock can be more effectively executed. It becomes possible to plan the manufacture of stock items when such production will help most to fill up the empty spaces in the factory schedule. Interdepartmental needs—*viz.*, products manufactured by the factory for its own use—can be inserted in the production schedule where the activity will do most to avoid idleness. In a firm with a large number of products, such as the Walworth Manufacturing Company, with its 23,000 listed items, the choice as to the particular items to manufacture ahead and in the quantities desired becomes a matter of moment. It

¹ Howard H. Wiley, "Reducing the Cost of the 'Dull Season,'" in the *Typotheta Bulletin* (published at 1500 E. Michigan St., Indianapolis, Ind.), August, 1922, pp. 20-21.

can be accomplished satisfactorily in the long run only when the schedule containing the detail quantities of what is to be produced is based on anticipations of the time that customers will want certain goods and the amount. This is done in this concern.

(d) The effective planning of labor requirements, a subject considered in the next two chapters, is largely dependent upon such a projection of information as the production plan represents.

Some of the results of scientific production planning have been truly remarkable. Mr. George D. Babcock's success in various plants was discussed in Chapter III. The vice-president in charge of the Peoria plant of the Holt Manufacturing Company, describing Mr. Babcock's work, stated that the firm had absolute control of shop operations, also that "we can today determine the serial numbers of the product that will leave the assembly floor on a particular day next December (over six months after the article was written), with full assurance that these particular items of product will be delivered on that particular day and no other."¹

Similar instances of that kind are available in other industries. The production executive of a well-known shoe company located in New England, in a letter written to the author in the latter part of 1922, stated:

The A—— and B—— factories, each employing approximately six hundred employees, operated from 1912 to 1917 without dropping a single half day's work.

The sheets, or half day's work (eleven sheets per week in five and a half days), are routed into the factory at nearly the full factory capacity, and I cannot recall a period when any material change was made in the daily listing except possibly a few slight changes during the depression of 1914.

The C—— factory, until the present catastrophe of 1920 and 1921, was operated with almost perfect regularity. It is possible that the record of this plant as to the number of employees on the payroll month after month and the regularity of earnings might be difficult to equal.

¹ M. M. Baker, in *Management and Administration*, June, 1924, p. 646.

IV SOME ASPECTS OF PRODUCTION PLANNING

1 Overcoming the Weather Factor

In some instances it is believed that advance manufacture cannot be carried on because of the effect of the weather on the processes involved or because of the perishable nature of the product. Claims of this kind cannot be accepted as final. Although the obstacles to production at certain times may appear obvious, scientific research may discover a way by which the unfavorable conditions may be economically circumvented. Progress in all directions depends on achieving the "impossible."

Brick-making, once requiring drying by the sun and carried on only about half the year, was released from the control of the weather by the development of artificial drying. Winter construction operations have been held impossible. In Chapter XIII, the newer developments are described which show that the technical obstacles have been to such a degree overcome that custom, not weather, is held mainly responsible for seasonal idleness in the building trades. In the section on mining in that chapter it is shown that the problem of storing bituminous coal has in large part been shorn of the technical difficulties by research.

Many warm-weather difficulties have been solved by refrigeration. In Chapter III it was shown that chocolate syrup is kept in that way in advance of the manufacture of candy. Other expedients help. In Chapter VIII it was shown that macaroni and noodles, at one time subject to spoilage, were redeemed for all-year sale by boxing them in air-tight packages.

*2 Utilizing the Dull Period**(a) Postponing Miscellaneous Activities*

In planned production it is often possible to postpone certain activities normally occupying a number of employees to the time when this work would be most welcome. Such, for example, are painting and cleaning the plant, and the general overhauling and repair of equipment—needs often

long felt but not met when the factory is busy. The International Harvester Company regularly plans its repair work and other activities for the summer slack.

A suggestive instance of what management can accomplish in this direction is seen in the efforts of the California and Hawaiian Sugar Refining Corporation, which has a rather unusually difficult problem and is meeting it in an unusual way. The facts concerning its situation were obtained from the secretary of the firm.

The company's offices are in San Francisco, but its refinery is located in an isolated community containing no other industry. As the surrounding country does not lend itself to agriculture, no small farms have been developed and the 1,300 employees constituting the operating force are, therefore, dependent upon the one industry for their livelihood. Fortunately, the firm believes that since these wage-earners have chosen to cast their lot in this community and look to the company as the one source of work and income, it ought to meet them half way by giving them continuous employment. About Christmas time the refinery has to close down for a period of about six weeks because all of one year's crop has been refined and the new crop has not yet been received. By carefully scheduling all work for this time that can possibly be postponed, the company has since its incorporation about fifteen years ago been doing much to provide employment in the slack periods.

Among the types of work reserved by the company are special construction work, major repairs that can be postponed, minor repairs, changes, improvements, and the scrubbing and painting of various pieces of apparatus and parts of the building. Besides these activities in the refinery itself, much is done outside in cleaning streets and sidewalks, in repairing fences, and in improving the company's large acreage and grounds. When, at other times of the year, business becomes slack and some employees would ordinarily be laid off, they are given work in the company's gardens at weeding and watering, and, at certain seasons, in watering trees along the state highway. They are also employed in other ways when local conditions or special occasions present the opportunity, in accordance with the character, status,

and strength of the wage-earner. This work is provided primarily because the firm realizes what discontinuity means to the employees and wishes to observe an ethical principle. However, this policy makes the community a better place to live in and work in, and yields many indirect and intangible benefits that make the executives feel what the company is doing is both worth while and well appreciated.

(b) Postponing Vacation Periods

Vacation periods should, of course, be postponed to the slack periods. In some cases it may be necessary to go further and to establish a common vacation time for everyone in the firm, corresponding to the slackest two weeks in the year. This has been in favor among a number of industrial concerns. It restricts the employee's choice somewhat, but on returning from his voluntary vacation period he is not given an additional and undesired period of idleness. Not all plants can shut down without serious inconvenience. Where it is practical from the business point of view, such a plan has advantages. It avoids running the factory with a force constantly depleted by the inavailability of key men. It also prevents some of the turmoil of arrangements for vacation periods. It allows the firm to work out a form of company vacation which enables the workers who might otherwise be deterred by the expense of leaving town to enjoy a vacation at minimum cost. It makes it possible to effect important changes in layout in the factory while it is not being used.

Many firms do not give paid vacations. The question as to whether they should do so or not is postponed to the next chapter. But aside from this question there is some opportunity of counteracting the effect of slack periods by allowing employees who want to take time off at their own expense to do so. What such employees want to be assured of, and in no uncertain terms, is that they will not weaken their relation to the firm by not being at work. If the employer makes it a practice to be particularly scrupulous with respect to this matter, there will be many more requests for leaves of absence during the dull seasons, and the man-

agement will be relieved of a feeling of responsibility for some of its workers during those times.

3 Adjusting the Hours of Work

When, in spite of all reasonable efforts, seasonal fluctuations of production cannot be wholly eliminated, the need for outside labor for the peak period may be obviated by adjusting the hours of employment. An average number of hours per week is worked instead of maintaining a standard week throughout. If, for example, a plant desires to maintain an average of forty-four hours a week throughout the year, the employees would work forty-eight hours during some weeks and forty hours in others, all on a pre-arranged schedule, as in the case of the Wilmer Atkinson Company, shortly to be discussed. This plan must be made clear to the employees if the evil effects of spending an irregular income, discussed in Chapter II, are to be minimized. There are some disadvantages to the plan, but not as many as the use of a purely seasonal force at the period of peak load. This is different from "part-time work" as commonly conceived, because the measure here proposed is a planned budgeting of production time. "Part-time work," on the other hand, is usually a relief measure adopted when the amount of work available has not been laid out carefully. Whether or not such part-time work is desirable is a question of labor policy discussed in the following chapter.

The five-day week, for which many unions are striving and which is also being considered by an increasing number of employers, offers an opportunity to take care of a sudden rush period by working six days for a time, without the need for an outside labor reserve. Saturday morning, in some industries, has ordinarily proven uneconomical because the runs terminate too soon. Employees are often not in the mood for working. Absences are more frequent. The five-day week brings some special advantages. One manufacturer states that the five-day week appealed to some women who are not willing to work a six-day week regularly and thus opened up a new source of labor supply. It reduced absenteeism by making it possible for employees to attend

to activities requiring attention during business hours on Saturday morning instead of on one of the other five days. At certain times, when a religious or legal holiday occurs on one of the regular five days, Saturday can be used to secure the needed production of the week.

There is a difference of opinion among manufacturers on the issue. The various arguments made by manufacturers for and against the five-day week are summarized in a statement issued by The Merchants' Association, of New York City, in the summer of 1923. Some of the objections would not apply against the policy of working five days at one season of the year and six at others. One of the chief difficulties claimed can be laid at the foot of unions rather than used against the five-day week. When firms are prohibited from ever working the full week by inflexible union restrictions this defeats the purpose of the measure, and fluctuations in the working force result.

These trade-union restrictions are founded in part on the tradition among wage-earners, shared also by many social workers, that shortening the work day will by itself reduce unemployment. In the platform of the American Federation of Labor and of its various subdivisions, for many years the sole plank that applied to unemployment directly was the demand for the eight-hour day. The demand of the miners for a six-hour day and a five-day week is a matter of current history. In June, 1923, the secretary-treasurer of the United Mine Workers of America, now the president of the American Federation of Labor, wrote to the author: "In order to meet the problem of seasonal irregularity of work, the six-hour day is demanded by the miners so that, if possible, they may have an opportunity to work more days per year."

Aside from special reasons in the mining industry which might make a six-hour day a boomerang to the union mines, the main weakness of the remedy as proposed in this form is that there is nothing to prevent an employer from drawing more workmen into the industry to produce his requirements at the time of rush, and so he really does not have to postpone any work to the slack season. The restriction on hours might thus really make the situation worse, because the re-

serve of energy drawn upon would not be the overtime exertions of the regular force, but new workers hired for temporary work. Thus the labor reserve in the industry becomes greater and, especially during bad times, the competition for jobs keener. Certainly there has been a progressive shortening of hours for decades, and yet irregularity of employment seems hardly to be affected.¹

The actual results of shortening hours and of restricting overtime, in so far as the amount of unemployment alone is concerned, have, therefore, not established these as remedies for the evil. Only when the craft has been one monopolized by a small group has the policy been successful in spreading the work over a longer period.

The claim that the shorter work day offers a means of appreciably eliminating any of the irregularity of operation has not been found in recent statements of the American Federation of Labor. One reason is that the eight-hour day and shortened hours have been won so generally by organized labor that the usefulness of the claim as a matter of propaganda has become much less. Furthermore, the contention ill-harmonized with one of the arguments by which the eight-hour day was supported—*viz.*, that the shorter work day is equally or more productive, for if this is true then the work-fund is not conserved by a shorter day. In the reconstruction program of the American Federation of Labor, drafted in June, 1918, the emphasis was put on low wages. "Unemployment is due to under-consumption. Under-consumption is caused by low or insufficient wages."

The individual workman has, however, probably not abandoned the idea that shorter work days provide more employment. The ease with which this fallacy can be made, and the force of tradition, are reinforced by many facts of common observation which seem to bear him out in his belief. When the Committee of the Iron and Steel Institute, headed

¹ The little influence that the short week can have as compared to the other economic factors may be seen in the rather curious fact that for a year previous to November 1, 1919, when the great coal strike broke out, the weekly reports of the bituminous mine owners showed an average operating time of exactly thirty hours. F. G. Tryon and W. F. McKenney, "The Broken Year of the Bituminous Miner," in *The Survey*, March 25, 1922, p. 1009.

by Judge Gary, announced on May 25, 1923, that the change to the eight-hour day in steel was undesirable because it would require 60,000 men more, it was perhaps not conscious of the fact that this was the strongest kind of propaganda in favor of encouraging workers to agitate for the shortening of the work day. It will do little good to plead that steel is a continuous process industry or to advance other arguments. The worker has the testimony of employers to prove that less work by individual wage-earners is desirable because it makes more employment, and the economic reasoning to refute it does not make much impression.

Restriction of output, in so far as it is practiced, is open to the same objection as that of restricting the hours, that it is only rarely likely to lengthen the season of employment. Labor should realize that restriction of output does not, in general, help to reduce irregularity of employment. On the contrary, it tends to increase the intensity of seasonal and cyclical changes. If through the purposeful inefficiency of the workers in any instance, a firm is using 115 men during good times when 100 men at fair efficiency would be sufficient, it means that more workers will be discharged when the times change.

In actual practice that is what happens. When, in 1917, the demand for coal was so great that the operators exerted every effort to increase their output, the scarcity of labor caused the operators to hire almost anybody willing to work. The result was greatly lessened production per man as compared with 1916. This meant that many more men were needed to produce the output than would have been employed if more efficient persons were available. The corollary of this is that proportionately more men were dismissed when the 1920 slump came, and the situation was worse for all. This illustration does not necessarily indicate a conscious restriction of output, but it serves to show how lower output affects employment.

4 Manufacturing for Stock in Emergencies

Manufacturing for stock as a device for maintaining production may be considered as of two kinds. The first kind

is the planned manufacture of stock items at those times when they fit best into the production schedule. This is done only to the extent required by the expected sales, and need not be further discussed because it has already been treated as a consideration in production planning. The second type, more commonly thought of by those interested in the unemployment problem, is the purposeful production during dull times or depression periods of something in excess of anticipated requirements for the year, or without seeing a sure market in sight, so that the organization may be kept together until conditions change. An instance is that of a firm making hoisting machinery which manufactured for stock during the entire winter of 1920-21, although it was fully aware that there would be no market for the product during the following spring or summer. The entire staff of workers was employed until the spring, but then readjustments in personnel had to be made.

This type of production for stock is not undertaken to any great extent because of the hazards involved. It is a comparatively simple matter when the firm makes staple articles with a widely advertised brand name, which are readily salable in the market. Otherwise, if a depression in the trade should intervene, it might result in a keen cutting of prices and a heavy loss. Certain policies which minimize such dangers are worth considering because manufacturing for stock to keep an organization together can be made a useful expedient.

In the first place, manufacturing for stock should always be safeguarded by careful market analysis. The firm will then know better how far it can go in manufacturing ahead. In the second place, a firm should select for manufacturing for stock a product with low material content and high labor content, to reduce the likelihood of a merchandise loss. Wages do not fluctuate as violently as prices of raw material, and because of differences in management in various plants, resulting in differences in labor efficiency and morale, wages are not as much a factor in labor cost as price paid for materials is in material cost. An ideal item of this kind is one of the small paper boxes used by the jeweler, which is manufactured for stock by the Dennison Company when it needs

something to occupy its workers. The boxes are staple products; they involve principally newsboard and paper and, therefore, have a small material cost, while the many processes of work involved give them a high labor content.

In the third place, a policy of simplifying or standardizing at least a few of the products in a firm's line should be a considerable aid to the policy of manufacturing for stock. What at first sight would seem more eminently fit for advance manufacture than railroad rails? But the specifications of each railroad vary in chemical composition and physical test. Even a partial standardization of the host of items which are inherently suited for advance manufacture would make the policy of manufacturing for stock an antidote to many of the seasonal and chronic irregularities of industry, and make it possible to mitigate periods of cyclical business depression as well. The opportunity to work on standardized items is often present in the manufacture of articles requiring renewal of parts, such as automobiles, agricultural instruments, or patented machines. The intelligent application of statistical method has enabled one firm to establish how large a demand for such items may be expected from year to year. Of course these parts are necessarily standardized because based on past models.

In the fourth place, it is important to understand that the policy of manufacturing for stock does not require the completion of the whole article in advance. Often the manufacture of only the component parts of a product need be carried on, leaving the assembly work and finishing processes for the time when the completed article is necessary. In some instances this is the only way advance manufacture is possible. An electric storage battery is of comparatively short life after it is assembled. But if the component parts are manufactured and stored separately, they can be made up as far in advance as desirable. This is how they have been manufactured for stock by the Winchester Company.

The method of advance manufacture of component parts may be the way to overcome difficulties where completed articles require too much storage space. In New York City space used by piano manufacturers costs perhaps forty or fifty cents per square foot annually. The storage factor is

therefore held to be a serious obstacle to advance manufacture of pianos. Warehousing in cheaper quarters to avoid the heavy charge is not considered feasible because of the general undesirability of moving pianos after their completion. To the extent that piano manufacturers make their own parts—and in some firms more assembly work is done than manufacture—the advance production of these parts gives some chance for filling in dull periods.

One opposed to manufacture for stock can point to several special costs due to production in advance rather than when needed. The answer to such an objection is that manufacture for stock will not be engaged in when a firm can maintain steady work without it. The Ford Motor Company, which has a complete stock turnover every twenty days or less, and is always behind orders, does not manufacture for stock. What it calls a ten-day "float" stock is all it needs for sudden emergencies. If, however, a firm is faced with the alternative of shutting down the factory or conducting operations with a partially idle plant, the losses involved may be considerably greater than certain additions to the cost of the production due to advance manufacture. But even if the policy of manufacturing for stock results in a temporary loss, the advantages to the workers of continuous employment may make such an outlay from profits wholly desirable. Indeed, a number of firms have courageously faced an unpleasant business situation by assuming a loss in operation in the hope of avoiding the greater aggregate social and industrial losses involved in the severing of the bonds that unite them with their employees.

V HOW THE VARIOUS METHODS WERE USED IN A PUBLISHING BUSINESS

The success of a well-known concern, the Wilmer Atkinson Company of Philadelphia, which publishes *The Farm Journal*, is illustrative of the value of using the various methods discussed as a remedy for the ailment of seasonal employment. The company's principal work is to print and mail 1,100,000 copies of its publication each month direct to subscribers. Because of the prevalence of seasonal advertis-

ing, the magazine varies in size from fifty-six pages in the summer months to twice that number in winter. To maintain the mailing list at 1,100,000, considerable direct-by-mail solicitation is conducted. During the six months following October of each year, from 1,000,000 to 3,000,000 circular letters are mailed, and as a result of this and other efforts, from 300,000 to 500,000 subscriptions, new and renewal, are received during the year. These subscriptions, along with the necessary changes in address, make it necessary to make a half million or more entries on the mailing list. The seasonal element of this work may be seen in the fact that while only 15,000 entries a month must be made in July and August, 80,000 are made in January and February.

In this firm it takes at least three months to train workers up to the desired degree of efficiency in any of the positions requiring some degree of skill, while in one operation, that of cutting stencils for the mailing list, the company's records show that after carefully selecting some one suited for the work, it is from twelve to fifteen months before the worker reaches the standards set for speed and accuracy.

It is readily seen, therefore, that the elimination of seasonal fluctuations in the work meant the employment of a well-organized and permanent labor force with high standards of accomplishment as against a shifting personnel never fully trained for the job. The firm, therefore, entered upon a constructive attempt to overcome its difficulties by considering the possibilities of modifying every factor which played a part in the irregularity of work. Some of the principles of its industrial engineering in this respect are indicated by the following summary, which does not, of course, mention the many detail applications.

1. The planning of work is now done in such a manner that only the essential operations are done during the very busy months and as much work as possible postponed to the slack months. For example, while entering of subscriptions must be done as soon as received, other work in connection with subscriptions, such as the inspection of the lists, the inspection and revision of subscription index-card files, the analysis of subscribers by counties, etc., can be postponed to the late spring and summer months.

2. To make such planning of production of maximum assistance, workers are trained to know an operation in another department and are available for ready transfer in accordance with variations in requirements.

3. Printing work suitable to the equipment of the plant has been solicited for the dull season, so that the firm now does considerable job printing at those times.

4. The dull season was further relieved of its terrors by the granting of a two weeks' vacation to the employees during the slack time.

5. When all the methods mentioned above were found to be inadequate to solve the problem completely, working hours were adjusted to the production requirements. Instead of a normal forty-four hour week throughout the year, an average of forty-four hours is maintained by shortening the work week to forty hours in the dull season and increasing it to forty-eight hours in the busy season. The workers thus make up in one part of the year what they lose in another and the annual income is not affected.

The problem has therefore been solved to a considerable extent, for instead of a wide fluctuation there was a variation of less than 10 per cent during a period of one year between the highest and the lowest number of employees on the payroll. This 10 per-cent difference did not involve much of a lay-off because in large part it was effected by not replacing employees who had left of their own accord.

As might be expected, the company reports considerable benefit to the workers and to the firm. Efficient workers enjoy the peace of mind of security, while the company benefits by the enhanced efficiency.

CHAPTER XI

LABOR POLICIES THAT STEADY EMPLOYMENT

I THE PLANNING OF LABOR REQUIREMENTS ESSENTIAL

THE control of demand and the organization of production in the factory are only two sides of the triangle of regularization by individual plants. They give the opportunity for regularizing employment, but they by no means assure it. The third essential is the proper planning of personnel requirements, involving a varied use of the labor force. A firm may show a uniform volume of production throughout the year and a uniform number of men on its payroll, but this no more implies that the same men worked all year than a uniform bank balance every month implies that the money originally deposited has remained untouched. A firm may lay off one group of workers in summer in order to take on others more fitted for a certain line of products, and then lay off these summer workers and take on others for winter production.

Numerous disturbances in employment come about largely through inadvertence. Dr. E. F. Gay describes one instance of this type:

I am reminded of an excellent factory, managed by a conscientious and high-minded employer, who is introducing, step by step, improved methods of production. . . . This employer did not feel inclined to substitute machines for men quite so fast as to throw seven people suddenly out of their jobs for every man that was kept. So he began on a basis of putting one man to running four machines. The three-quarters who were not needed—and they were fairly skilled workers—were dismissed. At the other end of the factory, the same process, begun a few months earlier, had so developed technique and economy of production that, with an increased demand for the product, additional em-

ployees were needed. Within the space of two weeks, thirty-five workers were thrown out at one end of the factory, and upward of thirty different ones were taken on at the other.

"Couldn't the people who were superfluous at one end have been transferred to the other?" I asked of the high official of the business who told me this.

"Why, yes!" he cried. "They could; but nobody thought of such a possibility! Of course they could."¹

Even when the employer does think of such conditions, they are not always properly taken care of because a well-developed technique is needed. For instance, in a certain plant engaged in enameling and insulation of magnet wire and the manufacture of electro-magnet coils, the proportions of the various sizes of wire and the various types of coils flowing through the factory are continually shifting, in accordance with the kinds of orders received. In one week fifty out of eighty operatives in the winding section may be needed on the winding of fine wire solenoids, while the next week only ten may be needed on this operation and some other require a large number of additional workers. The principles involved in establishing the right kind of personnel procedure to keep a labor force continuously employed are more complicated in practice than those outside of industry assume.

As in the distribution and the production aspects of business, intelligent foresight and planning are required. Just as the prospects of the next week, the next month, and even of the year are considered when purchasing new equipment or borrowing money from the banks, these prospects should be considered when hiring labor. Dismissal of workers or the use of temporary workers should be the last resort. As in advertising or in sales, ingenuity must be applied to the problem.

An excellent example of personnel planning in the employment office can be cited from the Ivorydale, Ohio, plant of the Procter & Gamble Company. The maintenance department had had some work which was due to terminate at a certain time and would release about seventy men. The personnel department knew that some time before this date

¹ *American Labor Legislation Review*, June, 1921, pp. 156-157.

of termination the packing department, the cooper shop and other departments would need additional men. The employment department first stopped hiring, even though temporary labor was needed and available. Then, for several weeks, adjustments were made by supplying men from the maintenance department for the most urgent needs of the other divisions of the business. This was not as easy a thing to do as hiring outside labor. It made a good many of the foremen impatient. But it served the purpose of avoiding a break in employment for the workers released from the maintenance department and it did away with the expedient of hiring temporary labor.

In the Curtis Publishing Company, the scheduling of work includes the probable volume of subscriptions in the fall and at Christmas. Approximately 800 more clerks are necessary for this purpose alone. On July 1, the employment department knows approximately how many workers will be needed in future months. From past records it is also known what per cent of the new workers hired will last. All hiring and firing are based on these anticipations of requirements, and the employment activities, therefore, are not haphazard, but planned.

A large and alert rubber company reports as one of the chief labor measures by which it has cut down irregularity of employment the plan of having a meeting every morning of representatives of the production department, the production control department, the labor department and the general foremen. These meetings, which take from fifteen minutes to a half hour, are held before hiring in the employment office begins. In the words of the executive who described the plan, the officers present at these conferences "are able to decide each morning where the most critical places are, and the employment office is enabled to hold off hiring in places where there is no permanent need for new employees. We have held up hiring and have absolutely filled all openings from inside the shop so far as possible." This has cut down variations within the departments and simplified the employment work greatly and, at the same time, this close cooperation has enabled the group to keep the shop in better balance.

One of the most praiseworthy features of the Joseph &

Feiss Company's policies is the careful consideration given to the matter of adding or reducing labor forces, or the promotion or transfer of individual workers. This is done through a "Balance of Personnel Committee," which meets weekly to consider the conditions with respect to future production and to decide whether new employees shall be hired or vacancies filled by promotion or transfer of old operatives. The Balance of Personnel Committee includes, among others, the head of the division assigning work to the employees, acting as chairman, the factory manager (who is vice-president of the firm), the manufacturing superintendent, the superintendent of the planning department, the supervisor of routing, the supervisor of training, the superintendent of employment, and the employment manager. Requisitions for new employees are, therefore, carefully scrutinized before the employment department receives authorization to employ anyone. Detailed reports as to the amount of the season's work finished and the production required guide the policy of the Personnel Committee. The better jobs are filled by promotion whenever this is possible, while systematic transfer is used to avoid hiring employees for whom there may be no real need.

Planning personal requirements can extend even to the accidental variations in conditions. Certain situations occurring irregularly and unexpectedly may really be planned against by the maintenance of a general preparation for adjustments in labor force. This requires detailed knowledge and thoroughly developed routine of the type to be discussed.

II NEED FOR A PLANT EMPLOYMENT DEPARTMENT

One of the first administrative requisites is that a central agency must be available in the plant balancing all labor requirements between departments. It must have a knowledge of the present requirements of each of these departments and anticipations concerning future needs. It must also control the hiring of new employees and the discharge of existing ones. Little, if any, headway in regularization of employment can be made by firms with the old-time haphazard methods of hiring and firing labor. A firm of only a

thousand or two employees may have its factories scattered over several acres. Each small section in the various buildings has its own activity, its own problems. Here a department wants to release one worker, another department needs one. At any one point the problem of balancing these requirements seems trivial. However, there are many such situations, and when added together the aggregate of a week's changes often amounts to a considerable number; that of a month is huge.

How are the adjustments to be carried out otherwise than by a central clearing house in the plant, having some authority? How is the foreman in department A, who needs six workers for four days, to know that department B at the other extreme of the plant can spare two workers for three days? And who will see to it that the workers are properly adjusted to these other jobs? For the most effective results what is required is not merely an old-fashioned employment office in charge of a hiring clerk, but a modern personnel department with authority and prestige.

The organization of a central clearing house for employment adjustments within a firm is only to take care in a smaller way of the same problem that public employment exchanges are intended to handle in the community as a whole. If there were more employment departments in private firms the work of the public employment exchanges would be reduced to decent proportions.

There are, however, limitations to what an intra-plant employment exchange should be called upon to do. Just as public employment exchanges will function best when individual plants have learned to reduce fluctuations in their payrolls to a minimum, the employment departments of firms will function best when relieved as far as practicable of transfers which can be made within individual divisions of the plant.

The need for going out of a division to secure workers has been reduced and work itself regularized in one progressive paper-products concern by what is termed unit instruction. There are a number of types of operations requiring a crew of workers for a unit of production. Formerly each girl knew only her own operation. When one girl was absent,

it was necessary to borrow another girl with experience in the particular operation from some other type of work or from some other unit. Now enough workers are trained for interchangeability within the unit to make it almost self-sufficient, and this reduces to the minimum the need for transfer between divisions. It may be that for this purpose, in the larger companies, employment departments of too centralized a kind may find it desirable to decentralize their activities without decentralizing their authority.

When this is not practicable, a firm might well seek out departments which are slack more or less regularly at times when other departments are busy, and make interchanges in workers between them an almost automatic procedure. In the Rowntree Cocoa Works it was the practice some years ago to engage extra painters for the summer season only and extra men in the packing room during the winter, resulting in a double set of temporary workers. When the firm began to regularize the work, it arranged to employ a single set of men regularly, who were engaged in packing during the winter at the wages suitable to that job, and as painters in the summer at the ordinary trade-union wages. The firm then found other opportunities of this sort, and its practice is to transfer employees continually to unskilled work.¹

III MUST NEW METHODS OR MACHINERY CAUSE UNEMPLOYMENT?

At one time the displacements caused by the introduction of new methods and inventions were the first things thought of as causing unemployment. With the growing knowledge of the more important industrial fluctuations, the emphasis given to displacements caused by new machinery and new methods has tended to disappear. They are now seen as both an incidental and avoidable cause. About fifteen years ago Sidney Webb brought out the salient fact that experience and studies of the unemployment problem during the previous twenty years had shown the "comparative unimpor-

¹ B. S. Rowntree, *The Human Factor in Business* (New York, 1921), p. 38.

tance, from a statistical standpoint, of the popular figure of the skilled artisan thrown out of work by the introduction of new machinery or other industrial changes.”¹ Several other authorities have pointed out that this type of change is calculated to impress the imagination but is relatively insignificant.²

The introduction of new methods or new machinery has frequently resulted in the displacement of workers when such an effect could have been avoided by proper foresight. Managers now see various ways of providing against this consequence. In an era of costly equipment and large factories, new machinery, processes, and methods are not installed overnight. Changes are gradual or may be made so. By ceasing to hire new workers on the operations involved, by training as many as possible of these who would have to be dismissed and by similar adjustments, it is often possible to make changes in a plant without laying off a single worker.

The introduction of scientific management in the Plimpton Press, of Norwood, Mass., made necessary a decrease in a payroll of from 800 to 900 employees to one of approximately 500 employees. This change took place over a period of three years and was brought about without discharging workers. The Joseph & Feiss Company, of Cleveland, reduced its working force from 1,044 to 865 when scientific management was perfected. The change took place during a period of four and a half years and not a single person was laid off to make way for improvements. The H. H. Franklin Company, manufacturing the Franklin car, took the matter of installing scientific management under advisement in 1910, but plans for introducing the various elements delayed the practical application of the new methods until July, 1912. This gave ample time for weeding out, by normal turnover, many of the persons considered undesirable, and for retaining those capable of working under the new conditions.

The policy expressed by the Supplee-Biddle Hardware Company, through its president, Mr. William B. Munroe, is an excellent one:

¹ Royal Poor Law Commission, *op. cit.*, appendix vol. ix, p. 185.

² A. C. Pigou, *Unemployment* (New York, 1913), p. 105, and Wm. H. Beveridge, *op. cit.*, pp. 114-115.

It is generally understood in our establishment that before a new plan for saving work is introduced, the one who conceives the plan should figure out another for profitably employing the workers who would be displaced by it. Just now one of our managers has an idea which will save us considerable on a certain operation. It involves, however, the displacing of an experienced man by an inexperienced girl. Part of the saving will be in the difference in wages. But the manager is not permitted to put his plan into effect until he has conceived another, equally as good, which will enable us to keep the man at worth-while work. In short, he must present two workable, practical plans where ordinarily he would be required to think of only one.

Knowing that better methods will not mean less jobs, our employees are constantly on the alert to discover these methods. . . . In another sense, too, we have gained by not cutting down our office force. When business comes back to normal we will have experienced, loyal workers in every department of our organization, and will not be put to the expense of hiring and breaking in new people.¹

Employers who do not show considerateness in planning adjustments of labor requirements when new machinery or new methods are introduced cannot with reason protest against the restrictions which trade-unions have built up on this matter. Opposition to machinery and to new methods in the past by labor has been based largely on the desire to conserve employment. Such opposition until not long ago was often openly professed by unions and some even had provisions with regard to this in their constitutions. More recently, the important spokesmen of organized labor have, on the whole, been broad-minded and reasonable on this issue.²

One of the soundest statements of the attitude of organized labor is set forth by John Mitchell.

What the trade-unionist desires is not the prohibition of machinery, but its regulation. . . .

Whatever may be the ultimate effect of the introduction of

¹ *Printers' Ink*, October 20, 1921, p. 28.

² See the appeal to labor to accept machinery, by the late President Gompers, in the September, 1923, issue of *The American Federationist*, official organ of the American Federation of Labor.

machinery, the immediate effect has been to work extreme hardship on the employee. The workmen who are obliged to work longer hours or more intensely for the same amount of pay, or who are thrown out of employment entirely, will not be consoled by the fact that in the long run prices will be reduced and the articles which they manufacture cheapened to them. The unionists believe that machinery should be introduced with the least possible friction and the least possible hardship to individuals. When the employer is asked to increase wages or reduce hours, he frequently asks for an interval of a certain time in order to allow him to accommodate himself to the change, and the labor unions are now beginning to recognize the necessity of making great changes in industrial conditions by slow degrees. An equal duty should rest upon the employer to make alterations gradually, so as to extend the effect of the change over a series of years, and thus permit the workmen to accommodate themselves to the conditions.¹

With this point of view labor unions have put certain restrictions upon employers into their agreements. In the women's garment industry in Cleveland, it is provided that the introduction of standards cannot be accompanied by any discharges as a direct result. In the Rochester men's clothing market, the right of the employer to make changes in shop management and methods of manufacturing is recognized, but such changes must be made without loss to the employees directly affected. Most strong unions insist on similar restrictions.

In the literature of unemployment there has been an almost total neglect of the beneficent aspect of machinery and labor-saving devices in reducing the need for large labor reserves in the particularly irregular industries. In the gas industry important mechanical progress made it possible to reduce the number of retort-house men employed per million cubic feet from over twelve to between two and three, so that the winter peak of gas production did not require as large a labor reserve for a given volume of sales.² The mechanization of farm operations is making it possible for

¹ John Mitchell, *Organized Labor* (Philadelphia, 1903), pp. 249-250.

² Frank Popplewell, in *Seasonal Trades*, edited by Sidney Webb and Arnold Freeman (London, 1912), p. 178.

the farmer to hire one laborer to tend a machine at sowing time or harvest time when otherwise he might need several men.

Devices which make it possible for an extremely irregular industry to get along with smaller labor reserves can be considered beneficent, however, only in so far as sudden disturbances are avoided and labor is directed gradually into more regular industries. On the other hand, only those who have the crude theory that everything which makes more work is economically desirable, whether the energy is used in wasteful methods of manufacturing or in manufacturing wasteful things, can oppose labor-saving devices, humanely introduced.

IV PAID VACATIONS DURING SLACK PERIODS, OR LAY-OFFS?

When employment figures are made into graphs, it is often found that the sharpest reduction in forces more or less regularly occurs during a period of a month or less every year. If at that time something could be done to eliminate lay-offs, the disbanding of the organization would not be carried out to as great a degree. As indicated in the previous chapter, the postponement of vacations to the slack periods is a proper supplementary expedient for avoiding unemployment. But many workers cannot afford to take vacations. If the firm cannot keep them on the payroll by other methods, the giving of two-week vacations paid by the firm would make the difference between extreme deviation from the high point of employment and a more moderate deviation. As an organization broken up even for a short while loses much in efficiency and morale, the policy of granting paid vacations to employees may be considered on the ground of good business, as well as on that of avoiding irregularity of employment.

The author does not feel that he is proposing a burdensome and unjustifiable remedy in suggesting the policy of paying for vacations. The grind of fifty-two weeks of work a year may be necessary for the factory, but the consensus of liberal opinion certainly favors a vacation of at least two

weeks every year for each worker. When a period of idleness is converted into a healthful vacation, the expenditure brings physical and psychological values which probably result in added efficiency when the wage-earner returns. Even if the benefit to production did not entirely justify it on business grounds, it is necessary for social reasons. The progressive attitude with respect to this matter is illustrated by Forbes & Wallace, a department store in Springfield, Mass., with over 800 employees. A paid summer vacation of two weeks is given all employees who by June 1st have been with the firm for twelve months, and a proportionate part to those who have been on the payroll less than a year. In addition, after the grind of the Christmas trade, a paid winter vacation of one week is given during January and February to all employees who have been with the firm the whole previous calendar year.

Of 106 firms which replied to a questionnaire sent out by the American Management Association, then the Industrial Relations Association of America, in the prosperous year of 1920, 44 per cent replied that they gave no vacation, 20 per cent gave vacations without pay to factory workers, and the rest gave vacations with pay to factory workers.¹ One investigator reports that 530 out of 624 establishments from which facts were collected, or 85 per cent of the total, gave vacations with pay to office workers, but only 18 per cent gave factory employees vacations with pay.² He observes the hopeful tendency, however, of an increasing appreciation of the desirability of extending vacations with pay to factory workers.

The Columbia Conserve Company, of Indianapolis, Ind., a canning firm with over 100 employees, has adopted the idea of long vacations as a means of waiting out slack periods. Having used considerable ingenuity in regularization and found that, nevertheless, a slack sometimes occurs, the firm gives the employees three weeks' vacation in summer and ten days around Christmas time. The company's policy is that

¹ *Personnel*, June, 1920.

² J. D. Hackett, "Vacation with Pay for Factory Workers," in *The Survey*, August 16, 1920, pp. 626-627.

six months after employees have joined the firm, or soon thereafter, they are put on a salary basis, with not merely yearly employment in mind, but actually an intention of life tenure. This, according to the president, means that, barring adversity, the firm will take care of the employees it has to lay off even if this involves months rather than weeks of paid vacations.

V SHOULD WORK BE DISTRIBUTED EQUALLY IN SLACK TIME?

One of the questions of policy which needs further clarification in the public mind is whether a firm forced to curtail production should distribute the work equally among the workmen or lay off those who are no longer needed. This is aside from the policy of varying the hours of work in accordance with a schedule of production, explained in the previous chapter, for in such an instance what the worker loses at one season he gains in another and the yearly income is not affected.

To most social-minded persons the question as to whether work should be distributed in time of slack hardly requires discussion. Any method other than that of distribution of employment usually seems selfish and unjust. Nevertheless, the practical effects of distribution of work are not, in many instances, as good as methods which may seem less generous. Furthermore, if the aim is the prevention of unemployment rather than the provision of relief, there are disadvantages associated with some methods of distributing work.

The employer who distributes work equally among his employees in time of slack should not invariably be regarded as a public benefactor. When a captain has mismanaged his ship, little praise is due him for having divided the available food rations among all who had taken to the boats. In some cases the expedient of dividing work would not have been necessary at all if the management had made better efforts to foresee the slack and to provide against it. It might have been possible to keep a larger proportion of the workers on a full-time basis.

1 A Shifting of the Burden to the Worker

The method of giving full-time work for only part of the year represents, in many cases, the shifting of the burden of discontinuity in the industry to the workers. If such irregularity of employment is a condition of the trade which management cannot overcome by any device, perhaps the slack period could be better taken care of, in part, by actual paid vacations, and for the rest by unemployment compensation on a fair basis. If the employer could not hold his forces for the rush period by the makeshift device of part-time work, perhaps he would look more favorably on the alternatives offered.

Some prominent students of unemployment are critical of the spreading of work among a large number. Rowntree and Lasker insist that any reduction in the hours of labor must be small, and state that "it is undoubtedly a very dangerous policy," because it places the whole burden of meeting the difficulty upon the workers; it conceals the evils of unemployment while doing nothing to lessen it; it may subject a comparatively large number of men for a considerable length of time to an income seriously below the minimum required for the maintenance of physical efficiency, and, if generally adopted, would expose society to the risk of a permanent lowering of the standard of living of the workers.¹ They believe that it would be better for the community to face and overcome the problem of the total unemployment of a small number of men.

2 Disadvantages of Distribution of Work

To these disadvantages might be added the fact that the method impedes the mobility of labor by the promise of a sure job, even if for three days a week, as against the uncertainty of conditions in other localities. A mining expert, in considering the possibilities of having the miners work on farms in the summer, stated that the most promising field for the practice would appear to be the Middle West, where

¹ B. Seebohm Rowntree and Bruno Lasker, *Unemployment: A Social Study* (London, 1911), p. 80.

many of the mines are near farming regions. However, part-time employment in the mines constitutes an obstacle. "If the mines were closed during the entire summer, the miners might indeed seek other employment, but instead they continue to work two or three days a week."¹ The distribution of work is thus incompatible with any schemes for dovetailing work between plants. It makes it practically futile for a worker to seek temporary work elsewhere. For the only kind of temporary work that is available for a man who has half days or one or two days of idleness at a time is usually unskilled labor of a casual sort, in which there is ample competition. Part-time thus breeds the habit of casual work. Yet it does not effectively aid the worker to recuperate his powers, for the worry of the situation tends to nullify the advantages of the opportunity afforded for rest and recreation.

Distribution of work seems to have the advantage of keeping the labor force tied to the firm so that there will be enough help for the peak load of production, but even from this business standpoint there are disadvantages sometimes overlooked. The older and better element in a plant expect and deserve preferential treatment for their good service, and, if they do not get it, become dissatisfied. In an agreement in the fancy leather goods industry, it is provided that all work shall be divided equally during slack season, and if a change in style makes it necessary for an employer to reorganize his working forces, it must be brought before the association and the union for adjustment. One manufacturer who is in favor of changing this rule so as to give the employer power to lay off those whom he wants to, stated that from past experience he found it impossible to divide the work among the employees who work during the busy season, because there was not enough work to go around. The consequences are that none of the employees earn a fair amount, and the oldest and most experienced help in this shop seek other employment.

From the management's standpoint, part-time work with

¹F. G. Tryon, "The Irregular Operation of the Bituminous Coal Industry," in the *American Economic Review*, supplement, vol. xi, No. 1, March, 1921, p. 66.

a large force often is much more costly than full-time work with a small, picked group. More supervision and clerical work is necessary. Where part-time is dispensed in the form of rotation of work, with a different force every few days, it takes several hours for the workers to get back their speed, and there is frequently some delay because all the men scheduled for the day are not at hand. These added burdens are particularly objectionable at a time of business depression, when the business is straining itself to the utmost to reduce expenses and to meet severe competition. An employer cannot, therefore, afford to disregard the disadvantages of part-time employment schemes at a time when operation with a decreased amount of equipment, reduced overhead and picked labor force is vital to existence. It would be preferable by far to bring pressure on him to start an unemployment fund, requiring provision during the harvests of better times, so that he might meet his obligations to his workers in bad times with less hardship to both himself and them.

3 Conditions Under Which Applicable

There is, nevertheless, a place for part-time employment, but under conditions which are more restricted than hitherto has been the case. The principles to follow in practicing this expedient should be more carefully laid down.

The first conclusion is that part-time work has practically no place in normal seasonal fluctuations of business except as part of a well-planned budget of work, discussed in the previous chapter, in which the amount of employment in the year is really equalized. Where fluctuations in production are recurrent, distribution of work is not only inferior to insurance as a means of providing for those displaced during slack seasons and depressions, but has a tendency to make insurance seem less necessary. To the extent that seasonal, cyclical, and other types of unemployment may be avoided by intelligent anticipations of these recurrent evils, the use of part-time work as a means of overcoming the effects is a makeshift.

A second conclusion is that if a contraction in business is

definitely permanent, due to loss of market, loss of patents, or other causes, it might be better for all concerned to have some employees laid off permanently—preferably the workers who have savings or few family responsibilities—than to engage in a protracted period of part-time work during which all would suffer.

A third conclusion forced by the circumstances of industry is that where a firm has no provisions for possible periods of unemployment, and a condition of general depression in the locality or trade would make it almost impossible for those dismissed to get work elsewhere at that time, distribution of work may be essential to keep workers from starvation. In those cases it is as humane as the distribution of rations during a period of famine.

Among the conditions upon which the adoption of equal distribution of work in various industries depends are: The greater differences in efficiency among workmen in some trades as against others which leads employers in the former trade to dismiss the incompetent; the greater value, other than general efficiency, of certain workmen to a particular employer, leading him to retain those workers on full time; the greater expense and difficulty incurred in recruiting the working force in the busy seasons, so that the attempt is made to keep them all in the trade, and the greater overhead charges in some industries, which make rotation of employees in a part of the factory more economical in such cases than the operation of the whole plant part time.

4 Attitude of Trade-Unions

Whatever be the merits of the case, however, the sentiments of the workers, and particularly of labor organizations, are decidedly for a distribution of work among all, rather than the selection of a few for dismissal. In a study of the subject it is stated that in only one of fourteen industries represented by unions whose members work on short time during dull seasons is it likely that these methods of meeting the contraction of demand would have been instituted and maintained without the influence of the unions, for in the majority of non-union establishments in the remaining thir-

teen trades short time is not offered and some of the working force are dismissed in the dull seasons.¹

The experience of the brewery workers is a striking instance of union-labor policy concerning equal distribution of work. When prohibition came, the readjustment of business to the soft-drink trade reduced the needs of one firm to two-thirds of its former number of employees. Since the equal distribution of work was insisted upon by the union, the firm continued to lay off the workers in rotation until the force reduced itself voluntarily by the separation of individual employees.²

Some unions, like certain locals of the miners, go further. They endeavor to have the available work divided among all the unemployed union members in the market. This is not necessarily part of a written agreement. The fellow-feeling general in mining communities has sometimes resulted in the offer by the employees of one mine to share their jobs with union members in another which has suspended operations. On the other hand, some union arrangements are not as strict with respect to the equal distribution of work, and allow for discharge of employees after the distribution has reduced the hours of all to a certain minimum. This is equivalent to the maintenance of a policy of short time for slight fluctuations in trade and dismissal of workers when the change is more severe and prolonged.³

Opposed to the equal distribution of work is the practice of conferring seniority privileges on the members of a union in accordance with length of service. The priority rules established in 1892 by the International Typographical Union provide that in the case of a decrease in force by any firm, the person last employed is the first laid off, and when the force is increased, the unemployed are rehired in the reverse order in which they were discharged. When any vacancy exists, the oldest competent substitute is to be given prefer-

¹ D. P. Smelser, *Unemployment and American Trade Unions* (Baltimore, the Johns Hopkins Press, 1919), p. 129.

² John R. Commons *Industrial Government* (New York, 1921), pp. 256-257.

³ Smelser, *op. cit.*, p. 123.

ence.¹ In the railroad brotherhoods the standing on the seniority roster of any railroad is of great importance.

The existence of seniority privileges in some trades as against the more usual practice of the equal distribution of work insisted upon so generally, shows the dominance of the older and more skilled members in these unions. Those who have built up a labor organization and who have accepted a trade as their life-long occupation naturally feel justified in looking out for their own interest. To the older members the younger workers are recent additions to the industry who may not stay in it. The principle of seniority is not seen as selfish, because it will redound to the advantage of the new workers when they become older and less able to adjust themselves to other work. From the author's point of view, it is better that work be made regular for a large proportion and irregular for a few wage-earners than that everyone should be insecure in his job. Seniority exercises a strong tendency in this direction.

VI SPECIAL METHODS OF PROVIDING PEAK-LOAD LABOR

The firm whose best efforts do not avail in eliminating peak loads of production may be able to find means by which these peak loads can be taken care of by special methods which provide a labor reserve not affected by the seasonal character of the work. One such case is presented and ingenuity will suggest others.

A peak of production in the Plimpton Press, of Norwood, Mass., occurs during the summer months. This is because the school boards and superintendents of the country postpone the selection and purchase of text-books until late spring and early summer. The firm has for years waged a campaign for the earlier ordering of text-books. The sales department has also made every effort to secure work for the dull season, by offering special price inducements. By these methods work has been distributed much more evenly throughout the year than it was formerly. In addition, employees whose tenure is considered permanent are trained for versatility, so that minor fluctuations are adjusted without

¹ *Proceedings* of the International Typographical Union, 1892, p. 135.

recourse to the hiring of outsiders. But these methods have proved inadequate and a summer peak of production persists.

The company then hit upon a plan that avoids the building up of a reserve of employees who want permanent work, but who must be discharged after every rush season. The force needed during the summer months is recruited from high-school girls and boys principally, and from college students. When school opens in September, the work begins to fall off and the force is naturally and painlessly reduced by the return of these girls and boys to school. The firm is thus left with a normal force and a large lay-off is avoided.

Occasional rush periods during the rest of the year are likewise met, in part, by having former women employees come for part-time work. These women who leave routine housework for such part-time assistance often do better work after a little practice than those who have worked all day. As some can do heavy work for a few hours a day, but would not feel equal to the grind of the full working period, this type of gainful activity is a source of satisfaction to all concerned.

VII HOW PROPER SELECTION FOR THE JOB INCREASES SECURITY OF EMPLOYMENT

One of the reasons for a pervasive feeling of insecurity upon the part of workmen is that even though the firm may be conducting its business on a regularized basis, individual employees are discharged because found to be unable to meet the requirements of the job. Some writers have passed this issue over on the ground that this kind of unemployment is due to the personal fault of the worker. The growing science of employee selection, however, makes it much more difficult to assign the responsibility for such "inefficiency."

Excluding from the present discussion the incorrigibly lazy or indifferent person, discussed in later chapters, several considerations tend to relieve the employee of some of the burden for his own inefficiency in a given situation. He is usually not a free agent in choosing a job. He cannot appear too critical in applying for work. He cannot place himself in that position in the firm in which his aptitudes will be put

to best use, even if he had intelligence enough to know which position it was. The developing technique of employee selection, however—an employer's function—with its job analysis and job specifications, allows the employer increasing opportunities to match capacities with assigned duties.

Industry must, therefore, accept part of the responsibility for proper selection of employees and for their efficiency in a given job. By doing so, employers can probably save from the ranks of the future irregularly employed many who would otherwise be destined to a life of vicissitudes and uncertainty, and whose suffering aggravates the social problem of dealing with the truly "unemployable."

A complicating factor in the situation is the absence of a fair norm of efficiency. A better than average employee during the boom period is not perhaps as good as the best available during a depression. Some changes may be necessary, but there is danger in an excessive eagerness to exchange one employee for another. The "house-cleaning" should not be carried to extremes. The momentary advantages of a change in labor force must be balanced against the human importance of giving employees a feeling of some degree of permanence in their jobs.

Progressive firms have hedged in discharge by many restrictions. Review by higher officers is made in each case. They force the employment department to find place for a man who has not made good in one department, thus testing his capabilities in another. The progress possible in reducing the need for discharge by such methods makes it an obligation to reserve this drastic act as the final resort. As such it will become a much less serious factor in causing unemployment to the industrious person who wants work.

VIII DISMISSING WORKERS WITHOUT CAUSING UNEMPLOYMENT

When a firm does find it imperative to reduce its forces, this may be done in a considerate manner, or in a manner that indicates indifference to the distress involved. If proper warning is given the employee and aid offered him in securing a job elsewhere, the dismissal may not lead to unem-

ployment at all and the worker may begin on a new job the morning after his release from the old one. In any event, other adjustments to the situation are possible which will not only alleviate the sufferings of the employee, but redound to the good will of the firm.

Some employers do not seem to realize what the sudden loss of one's job means. In the Ford Motor Company, more than eighty men in one department went home one evening without any intimation whatever that they were dismissed. They came to work next morning to find their desks and chairs taken from the room in which they worked, with no one authorized to tell them formally that they had been released.¹ In one large and prosperous firm which found it necessary to lay off half its force in the depression period, the majority of the employees were told only a week ahead, while others had only two or three days' notice, and some even less. This gave so little opportunity to readjust oneself that it is not astonishing that when, some time later, the employment manager made inquiry among forty-eight of these discharged employees, only two had found other jobs.

A number of the firms which found it necessary to discharge employees during the depression of 1920 and 1921 showed a fine discretion in handling this unwelcome duty and made an effort to minimize the distress created. In a letter written to a preliminary subcommittee of the President's Unemployment Conference, in the fall of 1921, the International Harvester Company outlined some of its policies in this respect. To lessen the hardships, the company had endeavored to give warning of the probable necessity of cutting down production far ahead of the actual occurrence. Many employees were individually notified six weeks in advance and advised where employment might be secured elsewhere. All plant employment managers were retained on full-time service, so that they might perform the duties involved in maintaining part-time work based on rotation of employees and in assisting the workers to find other jobs.

Every employee laid off was made to understand the reasons for the depression, and the notices informing him of the

¹ Samuel S. Marquis, *Henry Ford: An Interpretation* (Boston, 1923), p. 176.

lay-off were issued with the approval of the Works Council. A service certificate for use as an introductory recommendation to prospective employers was given every worker thus separated and a plan was adopted by which any request for personal letters of recommendation to the firms where the employees had applied would be expedited. In addition, the retirement of old employees was accelerated and many more put on the pension list than might otherwise have been retired. Various relief measures were undertaken, including loans to employees. A well-planned campaign for the encouragement of home gardening conducted under the auspices of the Works Council resulted in the raising of produce of value by many hundreds of the employees.

The McElwain Shoe Company, likewise, reported that one woman employment manager devoted nearly all of her time to the work of assisting the employees laid off to get other full-time or part-time work. A number of firms have laid off workers with some relation to their family responsibilities or other evidences of need. In the Norton Company, of Worcester, Mass., women and single men were released first, then married men in accordance with the number of dependents.

These measures indicate an attitude toward the problem that is most desirable. They are cited rather for their spirit than for their results. The employer who urges the distinction between evolution and revolution when preaching social policy to his employees might well apply it to his own business management. Wage-earners are keenly resentful of inconsiderate dismissals.

The restrictions which unions place around the reduction of forces, reorganizations, and similar changes enforce responsibility upon the employer for the workers whom he has drawn into his business. A permanent reduction in forces in the clothing industry, leading to the actual dismissal of some workers, can be carried through only with the cooperation of the union or, if the point is arbitrated, by a decision of the impartial chairman. Thus the employer cannot indiscriminately reduce forces to suit every variation in business prospects, and is forced to plan ahead so that suffering will be avoided.

IX HOW ORGANIZED LABOR CAN COOPERATE IN REGULARIZATION

This study would ignore an important phase of the subject if it did not consider how far organized labor can contribute to a program of regularization. The many ways in which the rules, restrictions, and traditions of organized labor touch upon production and employment policies are discussed in detail in their appropriate place.¹ Among these restrictions are many which have a most desirable influence in forcing the employer who might otherwise be inclined to forget human considerations to develop a sense of responsibility for the welfare of his employees. Others are based on a superficial analysis of the problem, and either hinder or absolutely prevent regularization.²

The present discussion limits itself to certain general conclusions as to what trade-union policy must be if organized labor's influence is to be used most fully in the promotion of steady work. The danger of making a biased selection of material in discussing this subject has been taken into account. Labor unions are not all alike, labor leaders do not have the same ideas, and there is the usual conflict between policies maintained by the force of tradition and the newer thinking that no longer regards them as essential. Expressions of those who are supposed to typify labor are sometimes not typical of the feeling of the mass. Yet study of the situation in a large number of trades makes certain conclusions justifiable.

What is required of organized labor is more than the modification of rules which are open to criticism. If one

¹ See particularly chaps. x, xi, xii, and xiv.

² One of labor's own spokesmen has taken pains to state in a labor publication that "There is no question that much of the backwardness of labor movements is ascribable to their own inertia and to their obstinate adherence to traditional tactics and policies which have never proved their effectiveness." He states that this is certainly true of the policy of American trade-unions with respect to the problem of industrial unemployment. (Leo Wolman, "Taking Insecurity Out of Industry," in the *Locomotive Engineers' Journal*, December, 1923, pp. 966-967. Dr. Wolman is Director of the Research Department of the Amalgamated Clothing Workers of America.)

should seek what seems the greatest need of the situation with regard to the attitude of trade-unions toward individual plants, it is a general spirit of cooperation with the progressive employers in every industry who are working toward the goal of eliminating irregularity of employment. Such employers are going to trouble and expense to improve conditions. They deserve the fullest aid when they desire that an obsolete regulation should be relaxed, or that some other form of support from union headquarters be received in the interest of sound experiments. Unions must take more than a negative, restrictive attitude. They must assume a positive, constructive function in promoting the adoption of far-sighted industrial policies.

To secure such cooperation is largely a matter of securing the right leadership in the union. Some leaders have gone far in making specially favorable arrangements for employers who have established confidence. Other leaders have shown a narrow, partisan attitude that has discouraged those who have tried to work with them. Often this has been due to the fact that some of these leaders have come to the front through their ability to lead a strike or through their strong personalities. They may be excellent in battle, but out of place in peace. The democratic process through which men become leaders in the labor world has many of the defects of rise to power in political democracy. Consequently, in so far as the individual workman can be taken into account in our problem at all, there is needed greater pressure from him, as well as from the employer, for the election of union officials who are willing to take practical industrial problems seriously and to aid in their solution.

In this respect there is to be noted the significant fact that in many cases the kind of leadership the union has and the attitude of the union members reflect the conditions imposed upon the union by the employers. Unions as a whole tend to react to the circumstances in which they find themselves. The degree of assistance secured from a union is likely to depend upon whether the organization has to maintain a fighting spirit to retain recognition, or is accepted and given responsibility for production. When the employer is always antagonistic and grudging, when a trade agreement

is only a period of truce until circumstances are favorable for the breaking off of the collective bargaining contract, the fighting psychology dominates the union. It regards every move of the employer with suspicion. Its philosophy is one-sided because detached. The complexities of business management are not appreciated. But when a union has achieved recognition and the employer sincerely accepts the union as a legitimate factor in the industry, he is in a position to solicit its cooperation in the solution of problems of mutual concern. There is then a fair possibility of fundamentally altering the viewpoint and interests of the workers' organization. A good deal depends on the tact and ability shown by the leaders on both sides.

Unions would do well to extend cooperation to management on other grounds than merely that of regularizing employment. Discerning observers believe that in the movement for shop committees, spreading in many industries, unions are faced with real rivals—actual substitutes for unionism. Whatever may be said pro and con on other grounds, it is a fact that shop committees are showing a spirit of cooperation and an interest in the welfare of the individual business which most local unions might do well to emulate. Unions can do this too, as the following instance shows:

1 Regularization with Union Cooperation on the B. & O.

The most notable recent example of cooperation between a union and the employer of an industry is one being worked out between the shop crafts and the Baltimore and Ohio Railroad. It is to the credit of unionism that the plan to be described originated on the side of the workers' representatives.¹ It was "peddled around" by union officials before the executives of a number of the railroads, and at last it received the approval of Mr. Daniel Willard, president of the Baltimore and Ohio Railroad. Mr. Otto S. Beyer, Jr.,

¹ The International Association of Machinists, in its published Declaration of Principles, lists as its first aim, aside from the organization of the workers of the trade, the following: "To adopt and put into active operation an effective plan of securing the continuous employment of all members of the organization."

an engineer, who may be said to have gotten the unions interested in the plan originally and who has been retained by them as their technical advisor and expert, has written articles describing this experiment.¹ From these, as well as from personal conferences with Mr. Beyer, the following account was made up, after which it was submitted to the B. & O. management for verification.

What Mr. Beyer, Mr. William H. Johnston, president of the International Association of Machinists, and others urged upon the railroads was a plan by which the workers, in their own meetings and through joint conferences by their representatives with the railroad officials, could concern themselves with their common problem of improving the railroad service. Here is an instance of union representatives themselves pleading for an opportunity to acquire a positive, constructive status in the solution of the problems of the industry. This move for cooperation had antedated the shopmen's strike, and as soon as the B. & O. had concluded a settlement, the development of the plan was resumed.

One of the first steps was to educate the rank and file of the workers to the idea. When the management and the union leaders had thoroughly gone over their plans, meetings were held nightly in the union halls, at which these union officers and their technical adviser explained the proposed program in detail. In some instances this involved days of heated discussion and the final vote on it, though favorable with large majorities, was in no sense unanimous. But only when the workers themselves had expressed their willingness to try cooperation was the plan begun, and the big Glenwood shops, located in the Pittsburgh district, were selected as the place to work out the technique of cooperation in detail. This technique is now under discussion on the whole railroad and being installed as rapidly as conditions permit. On February 25, 1924, an agreement was entered into between the officers of the Baltimore and Ohio Company and the officers representing the Federated Shop Crafts in the B. & O. service, which provided for the appointment of cooperative committees in forty-five different shops. That

¹ Otto S. Beyer, Jr., "B. & O. Engine 1003," in *The Survey*, January 1, 1924, pp. 311-317.

President Willard had no reason to regret this action is seen in the inspiring address concerning this plan which he delivered on October 30, 1924, at the Golden Jubilee of the City of Garrett, Indiana.

As the engineer retained by the federated shop crafts to guide this new development in the union's activities, Mr. Beyer's duties included a survey of conditions around the shop, in conjunction with representatives of the management and the union. This survey disclosed friction and grievances which demanded prior attention, but which were happily so adjusted that attention could be concentrated on things of real importance. The survey also revealed shortcomings in the control of work, in method of manufacturing, in the condition of tools and equipment, and in other factors of industrial efficiency. Step by step improvements were made in these matters, which brought a new interest to the workers and the executives and an increased confidence in their ability to work together.

Mr. Beyer states that "Here were regular union meetings, ordinarily held for the purpose of formulating grievances and discussing matters of special concern to the men as craftsmen, converted to the discussion and debate of cooperation, waste and economy in production, organization of work, stabilization of employment." Biweekly joint local cooperative meetings are held between the regular local federated shop committee and the ranking local management officer and his staff. Aside from these local conferences, every two or three months there is a joint conference between the executive board of the System Federation (composed of the general chairman for the B. & O. of each of the shop crafts), and the general superintendent of motive power and his staff. At these conferences the matters considered jointly and acted upon are concerned chiefly with shop, yard, and roundhouse operation. Thus the workers in the shops, through their chosen representatives, aid the management in improving conditions in the shop.

It is natural that one of the first of the accomplishments of this cooperative method was the development of methods tending to regularize work. This aim has been a major

purpose of the joint deliberations. The chief item in this regard has been the development of the principle that Baltimore and Ohio repair work ought to be done in the company's own shops. This is quite opposed to the tendency of contracting out all work possible, which many of the other railroads have done. With such local repair work added to its activities, the management has been able to organize production into a much steadier flow to the workers. About six hundred old locomotives were put into the process of "modernization," with the result that jobs of thousands of men became more regular and a splendid spirit of cooperation was generated. Its tangible value is seen in the fact that the cost of so "modernizing" these locomotives has, by actual comparison with the costs of outside companies, resulted in savings of thousands of dollars.

It should, of course, be understood that it is not merely by concentrating all equipment, maintenance, and building work in a railroad's own shop that employment will be stabilized. The reader no doubt realizes that the ingenuity of management must be exercised in planning this work and that such elements as the creation of repair reserves, careful production control, and other technical problems require attention before a regular plan of work can be secured. Work has not been completely regularized in the Baltimore and Ohio shops, but an important start has been made. The progress achieved points to the possibilities of ultimate achievement in a field which the less experimental executives of the industry have hitherto believed to be susceptible to little improvement.

The profitableness of the B. & O. method is amply demonstrated by figures quoted in Mr. Beyer's article. The value of this cooperativeness of the machinists' union has also been attested to on the employer's side in addresses made by Mr. Daniel Willard. The experiment has probably hastened the development of interest in the subject of steadying work by other railroads. Announcement was made in October, 1924, that at a meeting of the Association of Railroad Executives, in New York, a committee of railroad presidents had been appointed to make a thorough study of the question of eliminating the ups and downs of railroad employment.

2 Importance of Research by Labor Organizations

To make its influence effective, what labor needs in every industry in which it has a hold is the addition of a research wing to study its problems in detail, and particularly from the aspect of administration. This will make labor better informed as to a constructive solution. For often the responsible officials of a labor organization in an industry are woefully lacking in an understanding of the possibilities.

The following example presents a contrast between uninformed leadership and exceedingly intelligent leadership in the same industry. In the longshoremen's trade in England, the union's influence has been paramount in forcing the issue of decasualization to the front. Considerable progress has been made. Speaking for the dockers' organization, Mr. Bevin has outlined in inspiring fashion his hopes of turning the longshoremen's job into a dignified trade, in place of the catch-all for the leavings of other trades, and has supplied detailed plans for achieving this end.¹

In America there is almost a complete absence of any effort to decasualize dock work. On the whole length of our coasts, Seattle is the only place where an experiment has been made. The union seems to have done almost nothing about it. The author spent some mornings around the docks conversing with various union business agents concerning the possibilities of decasualization. Only one had ever heard of the intensive study made by Mr. Barnes² for the Russell Sage Foundation, although this has been available for years. The one business agent who did know of it stated that his knowledge came from the fact that he had seen Mr. Barnes around the docks for many months, not because he had been interested to read the book. Following this, in October, 1922, the author wrote to the international president, referring to Mr. Barnes's study. The reply showed that the president himself had never heard of the plan suggested by Mr. Barnes or of the progress in decasualization in several English ports. The letter read further: "Our organization has not worked

¹ E. C. P. Lascelles and S. S. Bullock, *Dock Labour and Decasualization* (London, 1924), p. 114.

² Charles B. Barnes, *The Longshoremen* (New York, 1915), 287 pp.

out any plan along this line, for the reason that we feel it is almost impossible, believing that it is beyond any human power to control the elements of the movements of ships so that they can arrive and depart on schedule." That is all that this important official had to contribute, and no doubt that explains in large part why dock workers do not voice a constructive solution for their common problem.

The American Federation of Labor has made a long step forward by accepting practically completely the program for preventing and alleviating unemployment proposed by the President's Unemployment Conference.¹ Labor has supported efforts to secure a comprehensive national system of employment exchanges, and has been particularly active in supporting such measures as the Kenyon bill, providing for the long-range planning of public work. The Federation has taken the cue from the British trade-unions in placing the emphasis entirely on "the cure of the unemployment disease by means of employment." In explaining this, however, Mr. Gompers quoted the principle adopted by the British Trade Union Congress in Cardiff, in September, 1921, which declared: "Our whole emphasis is placed upon the provision of work, either of a kind engaged in production of commodities for exchange or directed to ends of social utility."² In other words, labor places most hope in the provision of public work by the government, national and state, rather than on exhausting, first, the possibilities of regularization within each industry. It is the latter that it must pay more attention to in the future.

3. *Where the Union Can Put Its Pressure*

The question remains as to what labor can really do when the employer who gives irregular work is not interested in improving conditions and does not ask labor's cooperation. If regularization were a simple matter, the union could make a simple demand, as when it asks for higher wages or a shorter work day. But how demand a complicated technique of administration? Can the union insist upon the addition

¹ See *The American Federationist*, January, 1922.

² *Ibid.*, p. 17.

of side-lines? Or upon the standardization of the product? If so, how could the union guarantee the firm against losses? The methods needed in one firm are not the same as those in another. Unions would have to be organized on shop lines, and the local in each plant would have to insist upon the particular methods which that plant would find expedient, before labor could outline a truly specific procedure. But labor has no contact with industry which gives it the detailed information necessary to frame such a policy.

What union leaders can do, therefore, is either to make a direct differentiation in the daily and weekly wage rates paid by individual employers, in accordance with the regularity of work provided, or to make a somewhat less direct differentiation through the insistence upon certain forms of unemployment insurance. To demand uniform high daily and weekly wages from all the employers in an industry, irrespective of their individual experience, is wrong in theory, no matter how necessary the unions may feel this to be in actual practice. Observation of the most irregular trades shows that insistence upon securing high daily or weekly wages from all employers alike has not exerted a strong influence on the employers to regularize their business. Unions must, therefore, apply the principle of basing wages on the annual income in such a way as to allow the employer who gives his workers steady employment to pay lower daily or weekly rates.

If they had applied the principle that way the results might have been different. If when twelve dollars a day was the rate for bricklayers working only two hundred days a year, ten dollars, or some such figure were the rate paid by the employer who managed to employ his workers steadily, the differential might compensate or reward the employer for the costs and pains of regularization. It would also give a clear cut incentive for both individuals and groups to work out ingenious methods of eliminating idle time. There may be many administrative difficulties in such a method, but the principle is sound.

Those familiar with the problems of unionism and of collective market agreements may claim that the differentiation of wage rates in an industry in accordance with the

regularity of work offered by individual employers is wholly impracticable. Yet the fact is that practically this adjustment of wage rates was in effect in the women's garment trade in Cleveland at one time. The wage decision of April 29, 1922, by the Board of Referees, gave those manufacturers who were willing to guarantee forty-one full weeks of employment the privilege of a 10 per cent reduction in the established wage scale. These manufacturers had to give sufficient security so that if they failed to have the full forty-one weeks of work, the employees concerned would nevertheless be paid for the full time. A few of the firms took advantage of this offer. It has also been mentioned that in the needle trades and in some others the wage rates are actually much more flexible than advertised to be, and differential advantages of a tangible sort are given to firms which are able to get the union's cooperation.¹

On the whole, unemployment-insurance plans which provide a financial reward to the considerate and efficient employer, and penalize the other kind, are preferable to a direct differentiation in wage rates. Labor leaders are beginning to feel that they should petition for such a form of insurance, paid mostly by the employer, thus leaving the matter of business administration to the managerial staff. In the more progressive unions, unemployment insurance has become a goal and there is much agitation for it. The older and more conservative organizations prefer to have insurance a union benefit, but as they have established no funds of that sort and could not make a success of it alone, many will probably join the ranks of those demanding contributions from the employer for such a purpose. At this stage the unions interested in insurance prefer to get it by trade agreement and not by governmental legislation. Mr. Gompers expressed the sentiment of the old-line leaders, at least, in his objection to compulsory unemployment insurance.

¹ Chap. vi, *supra*.

CHAPTER XII

SYSTEMATIC TRAINING AND TRANSFER WITHIN THE PLANT

I WHY A TECHNIQUE OF TRANSFER IS IMPORTANT

TRANSFER between jobs and departments has been discussed so far without reference to the many problems arising in actual practice when this method is used to any significant extent. The firm which is not aware of these difficulties and the way that other firms have attempted to solve them is in danger of discouragement or failure in its own attempts to use systematic transfer or will repeat the errors which the pioneering firms have made in arriving at a proper technique in this matter.

Inter-departmental transfer is an indispensable element in regularizing employment. For example, in Sears, Roebuck and Co., the huge Chicago mail-order house, the payroll for the toy department varied during 1923 from 80 in June to 800 in the middle of December. If arrangements for shifting workers between departments in accordance with requirements were not practiced, the irregularity of employment would be extreme. One large periodical-publishing house in Philadelphia put a stop to laying off its mailers once a month by finding other things for them to do when not actually engaged in mailing.

II OBSTACLES TO TRANSFER AND HOW THEY MAY BE OVERCOME

1 The Opposition of the Workers

As the purpose of systematic transfer between jobs or departments is to make work more regular, would it not be supposed that the wage-earner would respond with alacrity

to the opportunity of working temporarily at some other job when the alternative is a lay-off? Quite the opposite, however, is normally the situation. The dislike of the worker for a change in employment is one of the most serious difficulties which the employer encounters, and the friction tends to discourage his effort to adjust his labor force to the requirements. This is aside from the effects of possible trade-union restrictions, discussed in the final section of the chapter.

That changes in work should be resisted may seem particularly surprising to those who entertain the belief that most employees welcome variety of activity. Business leaders and industrial psychologists think otherwise. One of our keenest managers reports concerning improvements in method in his plant that when a change was made workmen were irritated by it, but when they got used to the new method they disliked to revert to the former method. As a result of his observations he concludes that routine is pleasant and that it is the work caused by change that bothers workmen rather than the new method due to the change.¹ Some enlightened employers, such as Mr. Richard A. Feiss, have testified that they have found that the desire for variety does not exist to as great a degree or in as many people as is commonly supposed. They have stated that if there is one predominating desire common to the human mind in general, it is love of mental comfort and the desire to control acts along accustomed and consequently repetitive lines. For much the same reason many employees also refuse promotion, and not infrequently one has to hunt for persons willing to accept higher responsibilities. Among others, Mr. Henry Ford stresses the difficulty of securing men willing to accept promotion involving responsibility.²

(a) Psychological Aspects of Workers' Opposition

The reasons for this resistance on the part of the employees to transfer include some which have their root in

¹ George D. Babcock, in *Proceedings of the Sixteenth Annual Convention*, National Metal Trades Association, 1914, p. 149.

² Henry Ford, *My Life and Work* (New York, 1922), pp. 99-100.

incompletely comprehended psychological factors, and other causes more direct and tangible. Professor Hugo Münsterberg over a decade ago gave expression to his belief that popular conceptions of the monotony of work current among the masses of social theorists were not acceptable to the scientific psychologists. He does not deny the claim that frequent repetition of the same act may be a factor in fatigue and thus interfere with economic output, but limiting himself exclusively to the worker's subjective dislike of uniformity and lack of change in the work, he shows how the psychological attitude is frequently misunderstood.¹

Professor Münsterberg maintains that the job which the observer might think monotonous may not be so at all to the worker. If one does not know and really understand a subject one is unable to discriminate the subtler inner differences. The naturalist is inclined to fancy the study of the philologist as endlessly monotonous and the philologist thinks it must be utterly tiresome to work on minute questions of natural science. The worker, likewise, sees many small differences in his work which only long familiarity with his field can bring.

(b) Inducements That Make Transfer Acceptable

That objections by the workers to transfers in jobs are difficult to overcome is seen in the fact that various incentives and rewards have had to be offered by plants which had reason to want to reduce resistance on this score. In the H. H. Franklin Company an added wage of 4 per cent was given for each full process more than one that the worker acquired, and an instructor in any process was furnished to any employee who really desired to learn another job.²

Much will be said here of the Joseph & Feiss Company because it has taken into account every important element in systematic transfer and worked out some splendid methods in this respect. The initial opposition of the workers

¹ Hugo Münsterberg, *Psychology and Industrial Efficiency* (New York, 1913), see chap. xvi, pp. 190-205.

² George D. Babcock, *The Taylor System in Franklin Management* (New York, 1917), pp. 90-92.

to transfer has been overcome almost completely. In the first interview with the applicant for an opening in the firm, it is impressed upon her (most of the operatives are girls) that she is hired for the organization not for any specific job. The need for versatility is made clear to her during her training period, so that she fully expects to be shifted around in accordance with production requirements. After a worker is released from training and assigned to a job, she sees so many instances of "help-outs," *i.e.*, transfers, being arranged about her that she learns to regard such changes as much the natural order of affairs as non-interchangeability is in other plants.

A financial incentive called a "help-out bonus" is paid to the worker every time she is taken off her work and assigned to a help-out operation. This bonus is intended to cover time lost in getting started, in getting tools, in finding a batch of work at the tables, etc. It is one-fifth of her hourly earning average during the ten weeks previous to the transfer, and is given for every change, even if more than once a day. An additional financial incentive that makes transfer attractive is the opportunity of making extra wages. This occurs because as soon as a section has reached its quota the operatives may go home. But at that time another section may be behind in its production and help of workers from other operations needed. The girl who has learned one or more extra operations may secure an opportunity to earn extra wages by working on some other operation until five o'clock.

At the Procter & Gamble Company the acquiescence of the employee in transfer is gained, in part, by the tactfulness of the employment department and by the promise to transfer the employee back to his former type of work as soon as a vacancy is created. This may mean months of waiting, or longer, but is an important element because it at least gives assurance of ultimate return to the accustomed job, if this is possible. Sometimes there are obvious considerations that would make the most cooperative employee unwilling to accept a change of work. The job to which he is sent may be one of lower rank, thus involving a demotion in status.

2 Lack of Interest in the Temporary Job

A difficulty complained of by firms engaging in temporary transfers is the attitude of the worker towards his work after he has been transferred to the new job. In part this can be explained by various factors to be discussed in the following sections, such as the disagreeableness of the new work. In one firm an employee was given some work carrying around dyes and ruined more clothes than the daily pay could have bought. But even when such conditions do not exist, the spirit on the new job is usually not the same as on his regular work. In the Dennison Company complaints were made at one time that the transferred worker was less attentive to his work, less interested, and more inclined to loaf. The factory manager found it advisable to address a communication to the Employees' Works Committee on this subject, calling attention to the fact that systematic transfer was in the workers' interest, and that they must do their best when so transferred if the plan was to prove successful.

Some reasons for the indifferent attitude of a transferred worker may easily be perceived. The new environment is unfamiliar. The work involved seems a mere temporary arrangement to keep the employee busy. The foreman, being influenced by the same feeling, may give the worker less than the customary assistance, when more is really needed. The worker's output is likely to be discouraging because much lower than that of other workers.

This can be remedied in large measure if a system of transferring employees is not regarded as a mere routine matter, but seen as a scientific job. First, the worker must be made to realize the importance of this method, and inspired to do his best. This spirit of cooperation must be fostered until it permeates the whole organization and it becomes the custom of the workers to apply themselves to temporary work with all good will.

That is to a large extent the basis of successful transfer within the Columbia Conserve Company, of Indianapolis. The slack period in its factory is largely in spring. The firm owns a farm of about 650 acres, about ten miles

away, from which it secures its vegetables. This farm needs help in March, April, and May, and in part of October. The firm dovetails occupations between the factory and the farm. Fifteen men and twenty women were used on the farm in 1922, during the months indicated. The firm provided a motor bus on which they were driven between their homes and the farm every day. Among other transfers, fifteen women were trained to paint the inside of the factory. This took them over six weeks. Even office and factory workers are sometimes interchanged. It is evident that the success of the plan tried by the Columbia Conserve Company requires a plant morale leading to a whole-hearted application to the temporary job by the workers transferred. And this has been secured because the management has put the firm on a copartnership basis.

In most cases, however, there must be more than the appeal to the worker's sense of cooperativeness. Wherever possible, standards of work on the temporary job should be set and financial incentives for reaching them provided. Such a plan in use by a progressive firm is described in the later section on wage adjustments.

3. Inefficiency on the Temporary Job

In some firms where transfer between departments has been tried, the complaint has arisen that the worker transferred to a process has proved "inefficient." Such a claim must be analyzed in order for it to have any meaning. Even when fully trained, it is not expected that a worker transferred from some other process will at once be as proficient as those who have been working on an operation for a long while. The foreman who complains of inefficiency must, therefore, be made to realize that the advantages sought in balancing the labor force are not limited to the short-time considerations of the productivity of a worker on a particular day, but have reference to the long-time advantages of regularizing employment. Often the question of a worker's availability is more important than his ability. In other cases the cause of the inefficiency is that the worker temporarily released from a department is the one whom

the foreman considers he can best afford to spare, which may mean that he is among the least efficient even in his regular operation.

As already indicated, the efficiency of the worker will depend partly on his attitude toward the new work and the incentives given him to work industriously. But it depends also upon the care with which he has been selected for transfer to a particular job. Where a firm is large and the opportunities of balancing the labor force allow considerable discretion, the problem of selecting the employee who is to be transferred to a particular job is, in some essentials, the same as that of selecting an applicant for a new job. It can be done either scientifically or by rule of thumb.

Performance records of the employee on one or more operations should prove helpful. Where these have not been available, classifications of jobs in accordance with scientific job analyses have been important aids, both in temporary transfer and in permanent readjustment. Without them serious mistakes will be made.

The psychologist, of course, will classify jobs more accurately than is done in the usual practice—which stops at physical condition, skill, education, and other factors—for it is possible to bring together processes which, though apparently different from the standpoint of skill required, nevertheless are similar with respect to mental activity and psychological attributes. A worker whose performance is mediocre on one operation may be found to show exceptional talent for another. The employment manager of one firm reports several instances of that kind. A girl who does poorly on bench work, in which she sets her own pace, often does very well on jobs where the machine sets the pace. One girl doubled her salary in this manner. We need more such experiments. Temporary transfer will thus aid in the better use of our labor power, in the interest of higher production for the firm and greater personal satisfaction for the worker.

4 *Wage Adjustments and Wage Incentives*

Differences in wage rates between the old job and the new are a perpetual source of irritation if not properly

taken care of when transfers are made. The bonuses mentioned for learning additional jobs in the plant give an incentive to learn another process, but do not guarantee the customary scale of wages after the worker has been transferred. When a firm pays a worker his regular wage, although he is doing a lower-paid job, the regular pay also serves as a tangible recognition that the worker belongs to a higher class. It thus takes away the sting of temporary demotion. The firms which have studied the problem scientifically have come to the conclusion that a systematic scheme of wage adjustments must be adopted to cover all cases of transfer.

The Dennison Company has chosen to tie up the system of transfer with its unemployment fund. Time workers get their usual weekly wage when transferred to another job, irrespective of whether the pay for that employment is higher or lower. Piece-rate workers are guaranteed 90 per cent of the pay they have averaged during the six weeks previous to the transfer. In the latter case the piece-worker guaranteed a certain wage is thus really taken out of the piece-work class on the new job and his good will relied upon to secure his best work. The Procter & Gamble Company pays workers temporarily transferred to other jobs the regular wage rate, but in permanent transfers the wage for that new job.

The Joseph & Feiss Company has developed a most interesting plan of payment which has been copied in some respects by other firms. Its chief characteristic is to pay the worker in accordance with the efficiency to be expected of her on the type of job to which she has been transferred. The following discussion of the system outlines the main features of a rather technical payment plan:

The two principal components of the weekly wages paid in this plant are various special bonuses for quality, output, etc., and the regular basic piece rate for work done. Let us first consider the bonuses.

Practically every factory operation has been carefully analyzed, and with the aid of time studies, the "expectancy," or amount of production fairly to be expected from an experienced operative working regularly on the job, deter-

mined. The operative who lives up to performance standards on her regular job is able to earn certain quality and production bonuses which are an essential part of the wages paid. On temporary help-out operations, however, it is not expected that an employee will at once attain standard efficiency, so she is temporarily given a lower "expectancy" of output on the new job, in accordance with an elaborate schedule. The "expectancy" is a progressive percentage of the standard of output which scientific study, observation, and experience have shown it is possible for an operative to reach from day to day on a new operation. Thus she may earn the quality and other bonuses, although her production at first is far below that of the regular workers on that operation.

On the piece-rate schedule, the worker who makes only 45 per cent of the regular worker's standard the first day, as expected, gets only 45 per cent of the basic piece-rate wages. This does not bar her from earning all her bonuses, because that is all she was expected to do. The firm does not want the worker to lose anything in pay because of her piece-rate earnings if her progress from day to day is in accordance with the schedule of "expectancies." A special method of compensating her for the difference between her earnings at that time and her normal earnings has therefore been developed. Extra compensation, called a "retainer," is given. It consists of the difference between the girl's hourly piece-rate average on her regular job during the past ten weeks and what she can earn on the new operation if she keeps up with the expectancy schedule. The retainer decreases from day to day as the operative's expectancy progressively increases. The addition of extra compensation allows her to earn as much or perhaps a little more while learning than she normally had on her regular operation.

It may be added that the faith of the workers in the accuracy and fairness of the management is a factor in the success of such a system. An employee in this plant who at first thinks that a certain expectancy is too high usually finds later that the management has had a better knowledge of the situation, and passes on the word to the next employee who may be inclined to grumble. The

workers are thus willing to try out a doubtful rate for a few hours before protesting.

5 *Physical Unfitness*

Considerations of physical fitness play a part in transfer. Some jobs may cause serious injury to the health of the transferred worker. Even when an employee is physically sound, a change of work may call for the use of muscles not customarily exercised, and thus bring serious discomfort. In one firm a man not accustomed to heavy work was given trucking to do, and soon complained of soreness and lameness.

Where medical examinations of new employees and periodical follow-ups are not made, the obvious weakness of certain employees should be considered in making changes. Where medical work is carried on, it would be advisable to secure the formal consent of the doctor for every temporary transfer in which the health issue presents itself. In one firm employees are rated medically as A and B. The first class may be transferred without restrictions, the second with consideration of the facts.

III TRAINING WORKERS FOR VERSATILITY

The problem of training is intimately related to the possibilities of transfer. The impression is abroad that without some expensive and formal system of instruction few interchanges of work are possible. The best results will be secured, of course, where training of workers has its honored place. But there is an opportunity to balance work through less formal instruction.

One way in which training is obtained is an incidental feature of the worker's general experience. In many factories there is no training system as such, but when vacancies develop in one section and there is overcrowding in another, the workers are transferred even though not previously trained. This is done in most cases because no other workers are available. No doubt the foreman has to spend more time and use more workers to get out a given

amount of work than when he employs such skilled workers as may be available in the market. But the important result of this temporary inconvenience is that some of the regular staff acquire the rudiments of a new job. The next time that this kind of a transfer is made, the worker becomes more proficient in it and eventually is able to make standard production readily on two jobs. At the same time the firm becomes less dependent on an outside labor reserve.

Certain policies make it possible for a firm to make transfers with little or no formal training. A system of promoting from within, for example, has advantages in diversifying the abilities of the labor force. The higher grade of employees, who have been proficient in the operations of the lower paid, are a reserve in balancing the labor requirements in connection with changes in operations. Aside from those promoted by the firm itself, careful investigation will reveal to many plants that some of their employees have previously had kinds of experience elsewhere which are an asset in transferring them around. For this reason it is very advisable for a firm to maintain an inventory of labor assets.

In comparison with these informal and incidental methods, there are more organized systems of training used in other firms. In industry as a whole, training for versatility has not gone far. Corporation training as now developed usually includes merely specific job instruction, training for trade mastery and craftsmanship, and general education to make up for insufficient schooling. There are some instances of training for versatility, however. These may be divided into two types, (1) training special squads as "flying squadrons," and (2) training all workers in more than one trade.

1 Special "Flying Squadrons"

It should be noted that considerable balance may be maintained by securing versatility in only a small proportion of the labor force. This may be seen when a firm organizes a special squad, one of the best known instances of which is the "Flying Squadron" of the Goodyear Tire and Rubber Company, of Akron, Ohio.

This squadron was first established as an experiment to secure a more perfect balancing of production than the other methods allowed and, at the same time, to capitalize the opportunity offered of building up a group thoroughly trained in the rubber industry and capable of promotion. A three-year course of training has been set up, and the instruction so arranged that the firm manages to get the men over all the major production operations in that time. In addition to this shop training, the men attend regular school classes one hour a day during the entire period, and such subjects as rubber manufacture, organization and management, and business economics are taught. The wage rate of the men is such that they are expected to sacrifice something for the opportunity of joining the squadron, but this is partly taken care of by the fact that the firm pays them for the hour they spend in school. The aim of the firm is to have this flying squadron include about 5 per cent of the total number of factory employees. This proportion, according to the personnel department, balances production successfully. In September, 1922, there were 10,000 employees in the firm, of whom 500 were on the "flying squadron."

The company reports that during the years it has operated the plan it has found it a satisfactory method of balancing the labor force and adjusting the balance of work. Unnecessary hiring and firing has been prevented, and, in addition, the squad has aided in uncovering conditions in connection with production which were causing an unnecessary amount of difficulty. The firm has found that invariably a squadron man picks up a new operation more quickly than a green man, but the efficiency of the group depends largely on the spirit and enthusiasm injected into it by the men in charge. If the morale of the men in a specialized emergency squad such as this is an essential element in their efficiency, it only proves the point previously made that where systematic transfer is practiced at large in a plant, special methods must be used at all times to assure the proper spirit and cooperation by those transferred.

A number of other firms, including some department stores, use such flying squadrons and find them successful.

The Procter & Gamble Company has tried the organization of what it calls the "utility department," whose function is elastic in that labor may be drawn from it when needed and any excess of workers in a department may be assigned to it. This method the company has found of material assistance on a number of occasions.

2 *Training All the Workers for Transfer*

In one printing shop the following plan of initial training for the purpose of versatility has recently been adopted. Elsewhere, at present, compositors are trained specifically for their craft, and pressmen for theirs. For reasons which need not be taken up here, compositors are likely to be busy at times when the pressmen are slack, and *vice versa*. To balance the labor force in this company so that the men may be used interchangeably on composing work and on printing machines, young men are given an initial period of training in both crafts. The absence of agreements with the printing union; in this plant has left the jurisdictional problem, discussed in the next section, out of the picture.

Outstanding examples of training where the aim is to make every worker in the plant versatile are naturally found in plants in which operations have been subdivided to the utmost degree practicable and training functionalized. Such are the Plimpton Press and the Joseph & Feiss Company. In the Plimpton Press the regular employees are trained on two or more operations, so that during the dull seasons workers can easily be transferred between departments as needed. A worker engaged in gold-laying or other work may thus be transferred to the posting department when a local congestion requires it. This training is confined to regular workers because, as has been explained, the Plimpton Press has not yet eliminated the need for hiring of temporary workers during its rush seasons.

In the Joseph & Feiss Company, the new worker is at first taught only one operation. Later, when she is at work on her regular job, should some department require her aid, she is assigned to the new work, but again comes under the supervision of the training department. She reports to

the instructor on the new job and is made thoroughly proficient in it before released from his supervision. Training of workers in two or more operations is thus tied up with the transfer system.

To make sure that the training will be adequate for factory needs, it has been established that for each of the 158 operations in the shop a minimum of five persons must be available. To be considered available, the worker must be able to attain at least 45 per cent of standard. Accurate knowledge of the efficiency of the operatives on the operation to which they may be transferred is thus of great importance. For these reasons, the division in charge of assignments keeps detailed personal records concerning each operative who ever worked on any operation temporarily, how recently, how long, and what per cent of the standard to be reached on that job the worker actually did; also, for each operation, the total number of persons available as help-outs, as well as their combined efficiency. These facts are made easy to grasp by an interesting graphic device, serving as an inventory of labor requirements, known as the "Balance of Personnel Board."

The degree of versatility in the plant may be indicated as follows: the aggregate number of workers available for transfer on a certain day in June, 1922, for the firm's 158 operations, counting each worker for as many operations as she could be transferred to, was 940. The total number of employees on the factory floor at the time was 825, so that it may be said that, on the average, the workers in the Joseph & Feiss factory knew at least one job besides their own. However, as this amount is a mere average which includes the new employees, and omits certain workers skilled, but for certain reasons not available for transfer, it may be said that the experienced worker in the Feiss plant knows two operations besides her own.

The extent to which such versatility is used in balancing the labor force may be seen in the actual number of workers on operations other than their regular ones on any one day. From the records for Thursday, June 1, 1922, the total number of employees in thirteen principal divisions was 790, of whom 119 were not on that day on their regular jobs.

Therefore about 15 per cent of the workers were used to balance the factory. Comparison with the records of other days in the year shows that this is approximately the average per cent of operatives engaged in help-out work at any time.

Not all of these have to be transferred every day, for help-out periods extend beyond a single day and may be for weeks at a time. The balancing of the factory does entail the actual transfer of about 75 operatives for help-out work every day. Two-thirds of these temporary transfers are arranged by a central assignment division and are principally interdivisional. The rest of transfers are made, with approval, by the foremen themselves, by changing an operative from one operation to another within their divisions.

3 *Cost of Systematic Training*

There is little ground for objection to the methods discussed on the ground of cost, for they are merely illustrative of what various firms have done. A plant can use as simple method as it desires, although in many cases systematic methods may be found the least expensive in the long run. Figures isolating the costs of training for versatility are not at present available.

Business leaders who have trained workers for versatility think this desirable purely as a matter of business. Mr. Babcock has expressed his belief that the cost of training a worker of mechanical ability on one process to do another successfully so as to be in readiness for an emergency, along with the cost of a reasonable addition to his rate to make it interesting and worth while for him to learn, will not equal in two years the cost of once employing an outside man.¹ In any event, it is certain that the employer who does not learn to operate with as small a force as possible working regularly, but proceeds on the principle of what has been so aptly called the "volunteer fire-alarm system"—hiring and firing in response to every slight change in requirements—is creating considerable irregularity in the labor market that can and should be avoided.

¹ George D. Babcock, *op. cit.*, p. 91.

IV TRADE-UNION RESTRICTIONS ON TRANSFER

The problems of systematic transfer discussed are inherent in any association of human beings for work. Where, however, the employees have, in addition, a separate trade-union organization, special complications are involved. Conflict arises with these organized groups over various types of restrictions, expressed in trade agreements or otherwise. These conflicts are serious and may be inimical to the use of systematic transfer as a way of regularizing employment.

1 The Craft Unions

Trade-union restrictions on transfer depend in their practical effects largely upon whether a union is a craft union or an industrial union. The largest number of difficulties in transferring workers between jobs arise where unions of the narrow craft type predominate. In New York, the Employing Printers Association deals with eight separate union groups, in which three international unions are included. There is no transfer between any of these eight jurisdictions and no chance to belong to more than one union. Under the agreement with the Job Pressmen and Job Press Feeders Union Number One, a feeder is allowed to operate a job press in an emergency, but may not do cylinder-press work when idle because the latter type of work is exclusively within the jurisdiction of Cylinder Pressmen's Union Number Fifty-One. The fact that many men do know other occupations, or can learn them, does not materially affect the situation with regard to transfer. One impartial report on the printing industry calls the insistence that members of one craft shall not encroach upon the work of another the most trying practice of the unions.

Perhaps the most rigid demarcations between crafts are found in the building trades. An unfortunate decision as to who shall put up parts of the framework of a building or the floors may lead to a violent conflict between rival unions claiming the exclusive right to the particular kind of

work.¹ Often the rules are entirely illogical. Bricklayers and plasterers are in a single union in the smaller cities, yet in the larger cities the two crafts are separate and transfer is not carried on freely.

One suggested solution is the joining of more than one union by a worker. But with few exceptions, this involves the payment of the same initiation fee as that required of a new workman. This is a great obstacle and has forced many a workman to relinquish the hope of securing employment under the jurisdiction of another union. It would be better if the unions allowed the interchange of cards, but very few unions have established this form of reciprocity. The Commercial Telegraphers and the Railroad Telegraphers do not recognize each other's cards, although in actual practice their members are frequently changing jobs from one trade to the other.²

The more progressive trade-unionists do not fail to realize the seriousness of the obstacles to interchange of cards between unions. At the 1922 Convention of the American Federation of Labor, the delegates showed their general sympathy with a liberal policy on this issue by overruling a reactionary report on the subject submitted by the organization committee. In the discussion, a statement was made by a delegate of the bricklayers that his organization had entered into an agreement with the Operative Plasterers, the

¹ A dispute between the carpenters and sheet metal workers over the question as to which is entitled to put metal surfaces on wooden doors has been in contention for twenty years, has delayed building operations, and has caused enormous losses to owners and mechanics. For the purpose of eliminating the losses accruing from any jurisdictional disputes, a National Board for Jurisdictional Awards for the building trades was formed in Washington, D. C., in August, 1919. All international unions in the Building Trades Department of the A. F. of L., including the carpenters, subscribed to this plan. But when, after an exhaustive hearing, the board submitted a decision in which the sheet metal workers were granted jurisdiction over hollow metal doors, the president of the carpenters union resigned from the board and withdrew the membership of his union from the Building Trades Department of the A. F. of L. This resulted in more controversies and strikes throughout the country that are said to have cost tens of millions of dollars in losses on delayed building operations. And the issue is not yet settled.

² Smelser, *op. cit.*, pp. 42-43.

stone-cutters and kindred organizations, providing for an interchange of cards. But little progress in this respect has been made on the whole.

2 *Industrial Unions*

The practices and experience in unions which are partly industrial are a good deal better. The constitution of the International Ladies' Garment Workers provides that a member has the right to work in some other branch of the industry than his own for fourteen days without having to join the local representing that occupation. If the length of time in the new occupation exceeds fourteen days, he may transfer to the local representing another branch without being considered a new member. The employer has no right to transfer workers against their will, and if no work at the usual occupation is available they have the privilege of taking a lay-off instead. But if they accept transfer to a higher-paid position, they must secure the higher wages of that position. The classification of occupations, included in the terms of the agreement between the employers' association and the union in Cleveland, is fundamental in avoiding disputes over the remuneration of various jobs in that city.

In the agreements between the Amalgamated Clothing Workers and the association of employers in Rochester, the right to transfer workers between departments is accorded the employers so long as the regular earnings are guaranteed and the transfer is not in the nature of a demotion.¹ In the Hart, Schaffner & Marx agreement, as no doubt elsewhere, the right of transfer may be questioned by the employee on the grounds of discrimination and improper purpose.

Although conditions are better in this type of industrial union, the feeling of craft identity of interests is not eradicated. This spirit is only modified and weakened. The Amalgamated Clothing Workers of America recognizes the difference in craft interest among its members. In one of

¹ Labor Adjustment Board of Men's Clothing Industry, Rochester, Case No. 407, April 13, 1921.

the cases before the chairman of the Arbitration Board, of Chicago, in which the right of an employer to transfer cutters to trimming work at their usual cutters' rate of pay was contested by the union, the latter contended that cutting and trimming are distinct crafts; that when more trimming is needed, an effort should first be made to secure more trimmers; and that it is wrong to have cutters do trimming when trimmers are out of work. The decision of the chairman was in substance almost entirely in favor of the union's contention. The right of the employer to command a cutter to do trimming was recognized, but it was restricted by the reservation that the power could be used only when there were no trimmers to be had in the general market.¹

Thus, in spite of the provisions of these agreements, there is a general sentiment of disapproval among the workers against the use of the power of transfer. The amount of friction and heat likely to be engendered by its frequent use makes the employer reluctant to enter into this method of balancing labor reserves. Organized labor is group conscious. The workers have not learned to realize that in the long run transfer between jobs is essential for regular work. They cannot see beyond the fact that systematic transfer would tend to give some of the workers full-time jobs and others very irregular employment. Probably the establishment of unemployment funds in the needle trades will make a difference in the situation in the future, for the desire of the union to protect the funds against unnecessary payments will present a strong argument for taking the "no trespass" sign off craft lines.

The completely industrial type of union presents the least obstacles to transfer within a plant.² The best known example is the United Mine Workers of America, whose jurisdiction extends to all men employed in and around the

¹ Trade Board Case No. 179, May 19, 1920. H. A. Millis, chairman.

² The industrial union has not, of course, solved the problem of dovetailing work between trades or localities, for an electrician who is a member of the United Mine Workers and moves to New York City will have to become a member of the Brotherhood of Electrical Workers before he will be employed. This difficulty is one concerned with the general labor market and will be considered in chap. xiv, where dovetailing of work is discussed.

coal mines, irrespective of their craft or degree of skill. The union thus includes engineers, firemen, electricians, carpenters, day laborers, and other classes. In a letter of June 1923, Mr. William Green, then secretary-treasurer of the United Mine Workers, answers the author's query as to whether union restrictions would stand in the way of using the same man for carpentry, electrical work and engineers' work:

Men employed to do carpenter work, electrical work, or engineers' work in and around coal mines are hired without interference, and we require only that they belong to the United Mine Workers of America. There is no interference with the assignment of men to do this work by the mine management. The mine management determines who is to do the carpenter work, electrical work, and the engineers' work, and our union has no objection to men who do carpenter work doing other classes of work if the mine management wishes them to do so. An agreement is in effect in some districts under the jurisdiction of the United Mine Workers of America providing for a schedule of wages for blacksmithing, electrical work, carpenters, enginemen, etc.

The union's chief purpose is to see that men employed in each of these classifications receive the union scale as agreed to between the miners and the operators. We are interested in securing the scale for the men employed and allow the management to employ men to work at the different classifications.

In view of the flexibility which industrial unionism brings to the situation, in allowing the employer greater freedom to use his ingenuity in keeping his employees at work, the tendencies in trade-union organization are worth a moment's attention. At present only a few are of the industrial type. Is the narrow craft unionism only a temporary phase, soon to be displaced?

The outlook for any wide change in the craft spirit of trade organizations in the near future is not bright. The policies and actions of craft unions are highly self-centered and unyielding. Those who hold that the viewpoints and interests of all the workers in an industry are identical will not find their conclusion borne out by the facts. In a penetrating passage, Professor Hoxie maintains that such an assumption was not only false in the past, but is apparently

false for the discernible future.¹ The interests of one craft within an industry may be definitely opposed to the interests of others. It is often observed, as Hoxie has pointed out, that, "The skilled workers in general have no love for the unskilled, the successful for the unsuccessful."² This feeling of class interest by the skilled workers has not been eliminated even by the communistic experiment of Russia. Professor Charles A. Beard states that "there have been all along conflicts between the craft unions of skilled workers and the communists who were wont to speak of all workers as abstractions alike and equal."³

Occasionally articles appear in which the authors see tendencies toward amalgamation among the railroad unions and others. But in the trades where the problem is most serious the outlook in the immediate future is not encouraging. The convention of the International Typographical Union in 1922 "completely dissipated" the idea of enlarging the union to include compositors, bookbinders, engravers, stereotypers, electrotypers and others in the printing trades. A newspaper account of the proceedings states that "Both conservative and radical leaders joined forces in declaring that amalgamation of the various printing unions at this time was impractical and impossible. . . . President McParland . . . estimated that such a union would embrace a membership of 181,000, of which but 75,000 would be printers."⁴ A similar spirit is seen in the action taken by the 1922 convention of the American Federation of Labor concerning a resolution which set forth the evils of craft unionism. The Organization Committee's report, accepted by the convention, recommended nonconcurrence in the resolution on the ground that the subject matter contained in these resolutions was already in effect in the existence of the five main departments of the American Federation of Labor.⁵

¹ R. F. Hoxie, *Trade Unionism in the United States* (New York, 1917), p. 95.

² *Ibid.*, p. 97.

³ Charles A. Beard, *The Economic Basis of Politics* (New York, 1922), p. 97.

⁴ *New York Times*, September 16, 1922.

⁵ American Federation of Labor, *Report of Proceedings*, Cincinnati, Ohio, June, 1922, pp. 264-265.

CHAPTER XIII

CONSTRUCTION, COAL MINING, LONGSHORE, FARMING

THE reduction of fluctuations of production and employment in the construction industry, in coal mining, in dock labor, and in farming is essential to a program of steadying employment. The first two are outstanding national industries which are important not only for the fact that each employs hundreds of thousands of men, but also because their discontinuity imposes irregular operation on many allied industries. Seasonal construction work, for example, leads to seasonal production by firms manufacturing builders' supplies. The shipments of these supplies at times when crop and coal movements are heavy adds to the peak load in transportation. The completion of buildings, mainly at certain seasons, forces a peak load of work on public utilities installing gas, electricity, and telephones. Coal shipments likewise make for seasonal peak loads in transportation. The reduction of fluctuations in the construction and the coal industries, as well as in the others considered, would, therefore, be an important influence in the reduction of irregular employment generally.

Until recently it was popularly believed that conditions in these trades make the regularization of employment impossible. That problems exist which may ultimately offer resistance to complete regularization may be true. But one is not concerned with those difficulties at present because of the vast improvements which can be made at once if proper attention is given to the matter. Investigations have shown that irregular employment in these industries is caused largely by obvious faults of economic organization and managerial technique.

I THE CONSTRUCTION INDUSTRY

1 *Custom, Not Climate, the Main Cause*

"Custom, not climate, is mainly responsible for seasonal idleness in the construction industries." So begins the most important study ever made in America of practical remedies for seasonal operation in these industries.¹ These customs became fixed when builders had not yet learned how to cope with adverse weather conditions. The development of new equipment and new methods has made it possible to carry on most types of construction all year round in all parts of the United States. Inertia and tradition, expressed in common leasing dates, the procedure of making wage agreements, the habit of doing repair work during the spring or fall, the practice of advertising for work at the usual busy season instead of during slack, and the custom of painting in the spring, stand in the way of more regular construction activity. If weather were the principal cause, there would not be almost as much seasonal variation in Southern cities as in Northern ones.

Though obscured at times by a boom period in building and a shortage of labor, the extent of irregular employment in the construction trades is great. In the average American city, building workers are unemployed at their trade more than a quarter of the year. In Boston the workmen are occupied only about 75 per cent of the time,² in Philadelphia

¹ Many of the statements in this chapter are based on the recently issued volume on *Seasonal Operation in the Construction Industries*, which contains the Report and Recommendations of a Committee of the President's Conference on Unemployment (New York, 1924, 213 pp.). This committee was appointed by Secretary Herbert Hoover to make a thorough study of seasonal operation in the building trades. It is composed of a representative group of men of national repute, including builders, manufacturers of building materials, architects, bankers specializing in financing building operations, consulting engineers, labor leaders in the building trades, and others with intimate knowledge of the conditions. The actual investigation was carried on largely by the staff of the Division of Building and Housing, of the United States Department of Commerce.

² *Ibid.*, p. 31.

only 69 percent of the time.¹ A survey of conditions was made in New York covering a period of ten years and involving some 92,000 workers in over twenty-nine trades. The composite curve for annual fluctuations shows that during December the employment sinks to 50 per cent of the peak load.²

2 *Practicality of Winter Construction*

From many sides testimony is offered that winter construction is thoroughly practicable. The vice-president of the G. A. Fuller Construction Company states that his firm had prepared careful statistics extending from 1912 to 1922 and had found that the average length of time that a winter building program was rendered impossible due to temperature conditions was fourteen days.³ Other have pointed out that snow while falling causes no greater delays than rain at other seasons and that cold weather does not in the long run interfere with the efficiency of workmen any more than does high temperature in midsummer. A comprehensive summary of the question of winter construction says: "It may be stated without fear of contradiction that both from an engineering and a quality standpoint any type of modern building construction can be accomplished, and most classes of engineering construction as well, in the winter months as at other seasons, if the proper protection during the progress of certain parts of the work is provided."⁴

From the technical standpoint, emphasis is laid on certain elements of scientific management, particularly on careful planning. By the right kind of schedule the shell of a building may often be made ready by the time winter comes, then, by closing it in, the interior work may be completed with artificial heat. There are numerous difficulties in planning operations, but no greater complexities than are encountered in some other industries where uniform working schedules have become a regular practice of the better plants.

¹ *Seasonal Operation, op. cit.*, p. 39.

² *Ibid.*, p. 30.

³ *New York Times*, September 24, 1923, p. 22.

⁴ *Seasonal Operation, op. cit.*, p. 103.

When planning does not make it possible to avoid outdoor work, there are methods of conducting construction in cold weather without deterioration to the building, and ample practical advice is available on such points. The individual building contractor must, of course, learn to operate in a more modern way. The use of antiquated equipment and poor organization of work stand in the way of operation at times when this would otherwise be practical. Progressive building firms have development time schedules, charts, and data which allow for careful planning of every detail of the operations involved.

Winter construction is not merely practicable technically, but is practical from a business standpoint as well. It may even yield a profit over peak-load operation. In any event, it need not involve more than a slight addition to costs.

The available data indicate that even for those types of work primarily affected by weather conditions there is a decrease in the labor cost. On the remainder of the work not primarily affected by winter conditions it is also fair to assume at least a similar saving in cost due to increased productivity at seasons of relative inactivity. . . . Where there are also taken into account the pecuniary advantages of more continuous operation of force and equipment, the lower material cost and the saving to the owner of capital time charges through quicker occupancy, it is evident that these latter can be considered almost entirely net savings. These facts, little appreciated by the building industry itself and entirely unknown to the owners, should, if properly impressed on the minds of the owners contemplating building, result in an appreciable decrease in the present seasonal fluctuation in building.¹

These are the results immediately realizable. Ultimately other benefits should follow. "With further developments in methods of handling the work and the cooperation of the supply dealers through lower costs made possible by continuous operation of their own plants, the cost in winter can be reduced appreciably below that of warm-weather construction."²

¹ *Seasonal Operation, op. cit.*, p. 104.

² *Ibid*, p. 80.

3 *Organizing for Regular Work*

The knowledge that custom, not climate, is mainly responsible for seasonal idleness in the building trades puts us only one step nearer to a solution of the problem. For customs, the sociologists tell us, are generally more stubborn than technical obstacles. Individuals preparing to build homes must be gotten to place their contracts at times when it is best to start construction. Home owners must be induced to have painting, plumbing, overhauling, repairing, interior remodeling, construction of driveways or the erection of garages done during the times when there is normally a slack period in such types of work. Contractors and builders themselves used to the old methods must be taught to experiment with longer seasons of building and to develop more of an interest in the subject of continuous employment and operation. Public works form about 25 per cent of all construction activities. Public authorities, such as the Federal, state, and municipal governments, must be gotten to substitute for their clumsy ways of letting contracts on buildings, roads, and other construction work, methods of far-sighted planning which take account of both cyclical depressions and seasonal slack times. Public utilities must be induced to follow a like policy. Public agencies, such as churches, institutions, or hospitals, might well build upon this plan.

The individual builder is practically powerless to modify social customs that hinder regular employment. Organized effort is essential. The various uncoordinated parts of the construction industries must unite locally and nationally in a common program.

These organizations could make intensive researches into weather conditions and building methods in various localities; they could develop adequate records of employment; they could engage in advertising and general publicity to stimulate winter construction and repair work, and they could tackle the problem of common leasing dates. The expiration of leases at one time causes many home builders to ask for completion at the same date. In addition to the congestion of building operations, the common leasing date causes a

peak in the installation of gas, electricity, and telephones. Obviously, the solution of this question is a problem for a local organization of building and real-estate interests to agree upon voluntarily. Among suggestions made by such groups are different leasing dates for business and for residential properties, three fall leasing dates, and two spring and two fall leasing dates.

Were cooperation developed far enough, an organization could even set up a tribunal locally for scheduling requirements more efficiently in that locality. Construction work could be better spread out by the device of postponing types fit for slack-season activity. This is what the admirable "Philadelphia plan" proposed by Mr. Knickerbacker Boyd, of that city, intended.¹ It would lead to better coordination of local public works and bring many other advantages. There are several local groupings, such as the New York and the Boston building congresses, but cooperation with regard to regularity of employment has not yet extended much beyond common publicity and research. Such publicity has limitations, but at the least it will tend to dispel the idea that present conditions in the construction industry are the result of inherent technical obstacles or that winter construction is not good business. When these ideas have been discarded, the relative degree of responsibility of the public, of the builder, and of the labor union for irregular employment will be clearer.

4 *Improvements in Labor Management*

To a limited extent the large individual building contractors can "decasualize" part of their labor forces. The Aberthaw Construction Company is one of the firms which have improved upon the prevailing methods of employing labor. It has an employment manager—a type of executive rare in the building industry—whose function it is, in part, to steady employment for the competent men. When one of the men in the mechanical trades has shown competence

¹ D. Knickerbacker Boyd, "The Elimination of Waste in the Building Industry," in *The Journal of the Engineers' Club of Philadelphia*, June, 1921.

and dependability, he is given a "Record of Service" book, in which are entered the dates on which he has worked, his pay, and other information, including a sticker and a signature which show that his record was satisfactory. These men are given preference on the next job calling for their abilities, with the result that the best men are given practically permanent employment. While this method applies to only a part of the labor force, it operates to the advantage of both employer and employee, and assists, in a degree, in rewarding some men of constant habits by fairly regular employment. Men who have picked up other crafts in the course of their jobs are employed now in one capacity and now in another. Where the wage rates of the different jobs are not the same, the men are usually paid the rate of the highest paid occupation. This interchangeability is possible with little friction because the company conducts its work on an open-shop basis.

There is a great deal of room for the better use of the labor force engaged in construction work in a given locality. The contractor needs to develop more of a conscience for his men. Authorities in the industry are of the opinion that the feeling that it costs nothing to lay off men accounts in large measure for the seasonal idleness of the industry. But the cooperation of the craft unions is essential. Unless these unions are willing to join with the employers in a plan for pooling the labor supply and allowing a measure of interchangeability, the regularity of work of union men will depend largely upon such factors as the prosperity of the particular employers they work for or their luck as individuals in securing work.

II THE COAL MINING INDUSTRY

Few economic problems have occupied as much public attention as the ills of coal extraction. The fluctuations in prices, the many strikes, the occasional flares of violence, and the irregularity of employment have brought the subject to the foreground. There were no less than eight separate investigations of the coal industry by federal authorities between June, 1917, and November, 1921, as well as a

number by states and municipalities. The exceptional difficulties of the industry resulted in the appointment by President Harding of still another agency of investigation. This was the United States Coal Commission, which in 1923 issued a set of the most exhaustive reports on all phases of the industry, including a detailed study of the factors causing irregularity of employment. Except for a few printed leaflets, this study is available only in mimeographed form, due to the delay of Congress in providing for its publication.¹

1 Comparison of Anthracite and Bituminous Industries

The problems of the anthracite and the bituminous branches of the coal industry are not identical. The differences between the two divisions must be kept in mind. These differences will be brought out by contrasting certain salient features having a bearing on the outlook with respect to regularization.

The anthracite branch is the smaller division of the coal-mining industry. It employs around 150,000 men. The bituminous mines now employ about 600,000, but in 1921 fully 663,000 were employed.² Practically all the anthracite in the country comes from a narrow area of 480 miles in eastern Pennsylvania. Bituminous underlies an area almost a thousand times as large, and is dispersed through about thirty states.³ Anthracite seams are twisted and faulted, making mining more difficult than in bituminous, where the seams are horizontal. For this reason it is easier to engage in bituminous coal mining, and new mines are constantly being opened, especially during periods of high prices.

¹ Facts whose source is not given otherwise are based on this larger report, or on *The First Report of the United States Coal Commission*, a preliminary summary, issued in the spring of 1923, as Document No. 533, House of Representatives, 67th Congress, 4th Session (Washington, Government Printing Office), 21 pp.

² *Ibid.*, p. 15.

³ David L. Wing, "Economic Aspects of the Anthracite Industry," in *The Survey*, March 25, 1922, p. 1016. This issue, now getting to be known as the Coal Number, is one entirely devoted to the various problems of the coal industry, and is an excellent contribution to the various phases of the problem under discussion.

The differences in basic conditions are in part reflected in the number of independent mines in existence. Anthracite coal is produced on a large scale by only about 260 collieries. Bituminous units number well over 14,000 and include a large number of mines of very small tonnage.¹ Furthermore, anthracite coal mines are compactly organized. A group associated with railroad interests produce about 80 per cent of the total yearly output of the country, and competition is believed to be restricted by secret agreements.² Bituminous coal, because of the geographical dispersion and the number of mines, is believed to be as free of combination or control as any other commodity, and is subject to extreme cut-throat competition. One trouble of this trade, indeed, is the failure of bituminous operators to get together on their common industrial problems.³ On the labor side, the anthracite mines are operating almost entirely under collective agreements with the United Mine Workers. In the bituminous branch there are large sections of the country which have fought unions, leaving a contrast of union and nonunion fields, and resulting in differences that cause complications.

The differences in the demand for anthracite coal and bituminous coal are particularly significant. The demand for anthracite coal comes chiefly from domestic consumers. It is therefore comparatively steady from year to year and reflects the growth in population. The demand for bituminous coal, however, comes mainly from industrial concerns. It is, therefore, subject to the fluctuations caused by such changes in business conditions as cyclical depression and seasonal slack. Partly as a result of these fluctuations, the bituminous industry is based on a peak-load basis and considerably over-developed. It had a capacity, in 1923, suffi-

¹ American Railway Association Conference Committee, *Report to the United States Coal Commission*, June 1, 1923, p. 25. (H. A. Empie, The Delaware & Hudson Co., Albany, New York, secretary of the committee.) This report of 104 pages contains valuable summaries and charts concerning coal matters affecting transportation.

² Cf. U. S. Department of Labor, *Collective Bargaining in the Anthracite Coal Industry*, Bulletin 191 (Washington, 1916), p. 6.

³ See George J. Anderson, "Labor Policy in the Bituminous Coal Industry," prepared for Curtis, Fosdick & Belknap, New York City, 1922.

cient to produce at least 25 per cent more than the highest rate attained in periods of peak demand, aside from the excess that would exist if demand were more evenly spread out over the year.¹ The anthracite branch is only slightly over-developed.

Extreme under-employment is thus forced upon a large portion of the mine workers in the bituminous fields. The number of days worked by bituminous mines since 1890 in the country as a whole averaged only 213 days,² while those in anthracite averaged over 256 days. The wide divergence in days worked by the various mines in the bituminous fields makes a general average for the country of little meaning. The detailed statistics show how large a number of these mines worked considerably less than the 213 days' average. They show also that the number of days of unemployment of individual workers were usually much greater than the number of days that the mines were shut down, for few had employment on every working day in the year.

The more acute situation in coal mining is found in the bituminous fields. The discussion will, therefore, deal mainly with this branch of the industry. Most of the principles applying to the regularization of bituminous coal mining apply to the anthracite industry, and some are already being practiced there.

2 *The Bituminous Industry*

Two government experts, who made an analysis of the idle days in bituminous mines from 1890 to 1919, found that the average number of days lost was ninety-three. They have come to the conclusion, by plausible reasoning, that only about 16 per cent of the total can be said to be due to the business depressions that mark the business cycle. The remaining 84 per cent of idle days are lost because of special coal problems. Forty-four days, or over 47 per cent of the total days lost, occur in the spring and summer and are connected with seasonal fluctuations in demand. The remaining thirty-four

¹ *First Report, op. cit.*, p. 14.

² *Ibid.*

days, or 37 per cent of the total, are caused by "sheer over-development."¹

3 *Over-development and Excess of Labor Supply*

This phase, over-development, stands out most prominently of all the disturbing factors in the bituminous industry. That of seasonal peak loads in demand is the next in importance. In concentrating the discussion on these, other phases are not neglected, for attempts to eliminate over-development and to level seasonal demand bring up a host of coal problems.

(a) *Extent*

The over-development of the bituminous industry may be shown in two ways: the excess of capacity of existing mines and the excess in the number of workers. The extent of over-development in the number of mines is seen in a comparison of 1920 with 1917. In 1917 there were 10,634 mines. By 1920 the number had risen to 14,766—an increase of 39 per cent. Yet the aggregate amount of coal mined in 1920 was only 3 per cent greater than that of 1917. This means that the individual mines produced much less than in 1917.² Over 71 per cent of the mines at work in 1921 produced an average of only one car of coal per working day.³

The fact that so many of the mines are small ones is significant because the United States Coal Commission of 1923 found that the larger the mine the steadier its operation. The small mines are more irregular in operation than the large mines, whatever the general conditions in the industry are. Three types of bituminous mines must, however, be distinguished. The first is the industrial or "captive" mine, which

¹ F. G. Tryon and W. F. McKenney, "The Broken Year of the Bituminous Coal Miner," in *The Survey*, March 25, 1922, p. 1013. See also Fig. 3 in chap. ii, *supra*, with discussion on short-time fluctuations in the bituminous coal mining industry.

² American Railway Association Conference Committee, *op. cit.*, p. 25.

³ *Ibid.*, p. 31.

is part of a major manufacturing organization and is operated as a department. Industrial mines run as regularly as the major industry allows, regardless of market prices. The second type is the commercial mine, selling coal to the open market; the third type is a small commercial mine selling locally. The latter are called "wagon mines" or "snow-birds." These three types of mines are widely different in their operation.

Over-development in terms of capacity is seen in the fact that while the bituminous mines are equipped and manned to produce upward of 800,000,000 tons a year, the maximum annual demand for bituminous coal was in the war year 1918, when 579,000,000 tons were mined.¹ The excess of capacity has brought an excess of about 200,000 miners. Many of these workers are in isolated localities where no other occupation is offered. They cannot readily go elsewhere. They are held in part by the piece-rate system of payment, based on tons mined, which makes the rotation of work as a means of equal distribution of employment less undesirable to the mine owner than a system of part-time employment would be in other trades.

(b) Causes

Fluctuations in prices and the ease of opening mines account for much of the over-development of the bituminous industry. Most of the country's coal production is tied up by long-time contracts for delivery. In times of shortage or stringency, such as a railroad strike or other conditions, the comparatively small amount of free or "spot" coal on hand becomes the object of sharp bidding. The price goes sky high. This encourages the hasty opening of new mines for the sale of coal at the top prices involved. This was true throughout the war and the subsequent boom period and was also a factor during the coal strike of 1922. The mines opened in good times do not, however, leave the market when the price has fallen. They may even increase their development in the hope that by selling on a larger basis they may reduce their overhead.

¹ *First Report, op. cit.*, p. 14.

Numerous other factors have combined to spread over-development. Railroads which have seen an opportunity to increase their freight traffic have encouraged the opening of new mines along their routes. Large consumers of coal have bought coal lands and opened virgin mines. Certain railroad legislation has played a big part. For many years the law has been that any new mine is entitled to a railroad siding and a supply of cars, whether the new mine is needed or not. If the railroad serving that coal field is short of coal cars because of a peak in demand, it must distribute the facilities pro-rata among all mines it serves. This means that during such peak times some of the established mines cannot get cars enough to meet the demand of their customers, and that the new mines find the limited car supply of the others a distinct aid in getting a place in the market. The dilution of car supply thus forces a dilution of the coal business. To make matters worse, the car supply available at any time is distributed in accordance with a system of mine ratings which encourages the mines to equip and maintain a capacity far more than is required for the public use.

(c) Remedies

Solutions offered for over-development have been of various kinds. One large operator, who represents the point of view of quite a group among the owners, suggests that the situation be allowed to work out its own salvation through competition.¹ He assumes that in time all mines not necessary will be forced out. This remedy is more theoretical than real, since the conditions that produced over-development will be allowed to remain. Most students are convinced that neither the free play of economic forces nor the constructive statesmanship of the mine owners can be relied upon, and that pressure from the outside becomes essential. Miss Van Kleeck, for example, is one of the many publicists who entertain the conviction that "Over-development can be remedied only by a careful plan of regulation to limit the bituminous mines in operation to a number which could supply the

¹ F. S. Peabody, "Too Much Bituminous Coal," in *Mining and Metallurgy*, August, 1922, pp. 11-12.

country's need if reasonably full use were made of their capacity."¹ Others have advocated government ownership of the mines.

The United States Coal Commission, in a mimeographed report issued on September 20, 1923, calls attention to several methods of eliminating over-development. The commission believes that equilibrium can be established between demand and output by the granting and withholding of transportation service. It advocates for this purpose that the Interstate Commerce Commission, in exercising its present power of granting or withholding authorization to a railroad to put in sidings and to furnish cars, should determine whether or not at any given point and at a given time there is a public necessity for further coal supplies. By concentrating the available car supply at the places where it can be used to best advantage, encouragement can be given to mines that seem likely to be necessary permanently and the others discouraged. The Interstate Commerce Commission issued an order withholding authorization, on the grounds explained above, in the case of the Virginian Railway Company, but later rescinded this order.²

The Coal Commission also recommended a change in the system under which coal cars are distributed to coal mines in times of transportation shortage. It proposed that, in allocating available cars, first consideration should be given to the actual amount of coal sold by a mine in the previous year, not to the mere capacity of the mine. This will take away the incentive to open mining land merely to get a higher car rating. The desire to secure a higher car rating will lead operators to try to sell as much coal as possible during off season, even if at a small margin or at cost.

Another recommendation is to the effect that, given substantial similarity in the grade and quality of coal available for a particular market, measures should be worked out for having that market supplied with the coal that is nearest to

¹ Mary Van Kleeck, in preface to Louis Bloch, *The Coal Miners' Insecurity*, published by the Russell Sage Foundation (New York, 1922), p. 4.

² Original decision reported in *New York Times*, June 27, 1923; reversal of decision, reinstituting former practice, reported December 15, 1923.

it. This will minimize unnecessary development of coal lands. A gradual revision of the freight rates is suggested, providing differentials that discourage long hauls and tend to keep coal within its natural markets. Federal licensing of all who desire to ship coal from one state to another, whether as operators, wholesalers, or jobbers, involving observance of reasonable conditions attached to the exercise of the privilege, is recommended in this connection.

The commission also advocated a stricter policy with regard to the public lands owned by the state and federal governments. It advised giving the Secretary of the Interior full discretion to refuse a lease to a mining company whenever it does not appear clearly necessary to have such a mine. Finally, the commission urged the encouragement of consolidation and pooling of mines, under federal supervision.

By these various means, along with natural economic changes, the present excess in mine development might eventually be eliminated. If done gradually, the excess of miners could be eliminated in time with little or no suffering to those already in the trade. The problem is a huge one, requiring constructive and consistent effort and the firm hand of the government. But if any conscious policy of improvement in this respect has begun, it is not, as yet, apparent.

4 Leveling Seasonal Demand

These remedies apply mainly to the reduction of the capacity in excess of that at present required at the peak load of demand within any year. If that peak load of demand itself were reduced, there would be an additional excess of mine capacity that could be dispensed with because of the more economical use of the coal facilities. The problem which next confronts us, therefore, is that of securing a more even demand during the year, so that production may be spread over the various months. That result would follow appreciably if the consumption of coal during the year were changed because of the widespread regularization of other industries. Nevertheless, the demand would not be completely uniform from month to month because climate has

a good deal to do with it. A further need of the industry, therefore, is to induce the various types of consumers to purchase coal during off seasons and to store it for later use.

The question to ask first is, who are these consumers? An analysis of the monthly purchases of bituminous coal shows that the three groups principally responsible for the seasonal fluctuations are railroads, consuming 28 per cent of the total output, industrial plants, consuming about 25 per cent, and the domestic consumer using about 10 per cent.¹ The remaining groups of consumers are not prime factors in the seasonal irregularity of demand. The problem of improving the seasonal demand may, therefore, be considered with reference to the three classes of consumers mentioned.

Would these consumers be willing to purchase their coal in spring and summer? Coal is bulky. Even if storage facilities are available, it requires special attention. The prices of coal are fluctuating and there is danger of loss. Therefore, more regular demand can be secured only if some especially good reason is given the dealer, as well as the consumer, to buy ahead of time.

It is commonly agreed that the only method which has some hope of accomplishing this purpose is a price differential. This should not only recompense the buyer for his extra expense in purchasing and storing, but net him a profit over what he would have made if he had waited. Individual mine operators could probably secure some economies from full-time operation, enabling them to offer some seasonal differentials. It is doubtful, however, if these differentials would be large enough to stimulate summer sales when the general practice is to the contrary.

We are not without experience as to the value of a seasonal reduction in price, although this evidence is not wholly conclusive. In the anthracite industry such a differential has for some time been in force, and Fig. 7, shown in Chapter VIII, indicates, by comparison with idleness in the bituminous coal industry, the effect of the summer discount in the sale of anthracite.

¹ Cf. *First Report, op. cit.*, p. 7, and charts which may be secured from the U. S. Geological Survey, showing nature of the demand from various types of consumers.

5 *Seasonal Freight Rates*

It is now widely believed that a readjustment of freight rates will give the support the operator needs to induce earlier purchasing. This was among the recommendations of the Bituminous Coal Commission of 1920, which urged consideration by the Interstate Commerce Commission of a graduated seasonal freight rate that is lowest in the spring and a monthly graduated increase in rates until the late fall.¹ The United States Coal Commission of 1923 seemed to favor such a policy, but it also pointed out that irregularity of operation is not uniform and that the different grades of coal have special uses that make them vary in the degree of seasonal production.

The huge reservoirs of bituminous and of anthracite coal at various points on the Great Lakes may be regarded as instances of the effectiveness of seasonal freight rates. Producers in Eastern fields who sell their coal in the Northwest prefer to ship by water because of the lower rates in Lake shipment. As they cannot secure these low rates during winter because the Lakes are frozen, yet wish to profit by the freight differentials, they ship a good deal of coal to themselves during the summer, and store it at the other end at their Lake terminals until needed. A great system of docks—constituting the greatest storage plant for coal in the world—has been built up at the head of Lakes Superior and Michigan.² The method of pooling coal at such terminals would be used more generally if there were not the difficulty of controlling the quality of coal and the added difficulty of suspicion by the operators among themselves.

A bill providing for seasonal freight rates was introduced by Senator Frelinghuysen in 1920, and was reported favorably by the Senate Committee on Interstate Commerce. This bill³ proposed to amend the Interstate Commerce Act, empowering that body to make seasonal reductions of freight

¹ United States Bituminous Coal Commission, *Award and Recommendations* (Washington, 1920), p. 58.

² F. G. Tryon, "The Irregular Operation of the Bituminous Coal Industry," in the *American Economic Review*, vol. xi, no. 1, supplement, March, 1921, p. 68.

³ S. 1806, 67th Congress, 1st Session.

rates on coal during the summer months and corresponding increases during the winter months, with the provision that the carriers were to receive the same annual revenue as if no seasonal variation had been provided.

On June 20, 1920, Senator Frelinghuysen opened debate on the measure in the Senate, sitting as a Committee of the Whole, and it was discussed intermittently for about a week. The opponents occupied most of the time, however, and numerous objections were brought up, such as the inequalities and injustices that would be caused by a disturbance of the freight-rate system. The most persistent type of objection was the hostility to any governmental interference whatever in the coal business. On June 29th, the bill was recommitted to the Committee on Interstate Commerce, on motion of Senator Borah, a friend of the measure, who said he preferred its recommitment to its defeat. Senator Frelinghuysen bitterly arraigned the coal lobby as being most responsible for the defeat of his measure.

6 *The Problems of Coal Storage*

Most of the plans suggested for securing the purchase of coal in advance of need imply that such coal would be stored until used. This raises the question as to whether storing of coal is practical. Regularization of employment thus depends largely on the feasibility of storing bituminous coal.

First there are technical problems involved. Fortunately, it is now known that coal can be stored safely and economically. The inherent qualities of bituminous coal have a bearing on the tendency to spontaneous combustion, but the size of the coal, its freedom from dust, and the way in which it is piled are believed to have a closer relation to its storability. It is held that any coal can be stored if it is properly prepared, while any coal improperly stored will heat and may fire.¹ The best procedure is to put those coals in storage that

¹ H. H. Stoek, "Storage of Bituminous Coal," in *Mining and Metallurgy*, March, 1920, p. 33. The whole issue is devoted to the papers and discussions of a conference on "Stabilization of Bituminous Coal Industry," over which Herbert Hoover presided.

lend themselves readily to it, while types known to be particularly liable to spontaneous combustion should not be selected.

The question then comes up as to who shall store the coal, and where. The chief possibilities are: in the neighborhood of the mine by the operator, near the point of consumption by the wholesaler or retailer, and in the bins of the final user.

Storage at the mouth of the mine is rare. Railroad cars seem to represent the only storage capacity used by soft-coal mines. These facilities are inadequate because the railroads do not allow more than a few cars to remain on the track at the mines for this purpose. The situation is different in the anthracite fields, where storage facilities have been provided by the large mines owned by railroad companies. An important objection against storage at the mine is that all this coal would be shipped at the same time as it now is, and it would in no way eliminate the wastes of idle railroad equipment during the year to handle a peak load in coal transportation. There are other disadvantages that make storage near the mine inferior to storage elsewhere, unless coupled with the much-discussed policy of making power at the mine mouth and transmitting it over wires, rather than shipping coal in cars.

Storage *en route* is a second possibility. By this is meant the accumulation of coal at points along the route from the mine to the place of use. This method is not practicable if conceived merely as the unloading of coal at any point along the railroad line where space is ample and climate favorable. Unloading and reloading would be so expensive that the stored coal would not be able to compete with that handled by more direct shipment. Such intermediate storage is feasible, however, at some natural breaking point. An instance of this kind are the great yards constructed as reservoirs for coal arriving by rail to the Great Lakes, where they have to be unloaded anyway in order to be shipped by water. While such storage *en route* distinctly aids in the regularization of coal production, it has a limited applicability and some disadvantages to the consumer. In time of congestion or strike

there may be almost as much difficulty in securing coal from a point 300 miles away as from one three times as far, and coal may thus fail the purchaser at a critical moment.

Storage at the point of consumption is the third method, and upon the desirability of this all agree. Production in advance by the operator with shipment to market centers in the hope of selling it after arrival is so often unprofitable that few operators do it. The consumer himself must store it. Coal economists point to the fact that there were at least 63,000,000 tons of soft coal in commercial storage on the day of the Armistice. This means that the consumers had about 23,000,000 tons in excess of the estimated normal stocks of the country usually in their possession at that period of the year.¹ Experts believe that the provision of permanent storage facilities by the consumers for enough coal to stabilize the industry is feasible and could be done at a cost that is not prohibitive.² Storage at the point of use combines the advantage of protecting the consumer against transportation difficulties with the other benefits for which the measure is intended, especially because the coal can be shipped early and will thereby reduce the peak load of traffic forced on transportation facilities in the fall. It avoids the extra cost and breakage incident to each rehandling.

Large industrial plants which use a great deal of coal should be able to store profitably. The Commonwealth Edison Company, of Chicago, maintains several hundred thousand tons just outside the city limits as an emergency supply.³ Communities should aid the smaller consumers by providing municipal storage facilities.

Intelligent administration of coal purchases and storage in the public interest by the largest group of consumers—the railroads—is one of the most important phases in the stabilization of coal demand. They seem in a particularly good position to store coal. Some railroads do so now. The

¹ F. G. Tryon, *op. cit.*, p. 68.

² See report of a special Coal Storage Committee of the American Engineering Council. A press summary is contained in the *New York Times*, September 19, 1924, and a more extended discussion in *Management and Administration*, August, 1924, pp. 197-199.

³ H. H. Stock, *op. cit.*, p. 31.

Bituminous Commission of 1920 reported that acceptance of the principle by railroad executive heads had been general.¹

One of the reasons why railroads have not stored coal more in the past is that by various practices they have been able to assure themselves of coal whenever they have needed it, without storing. One of these practices was the allotment of "assigned cars," which put railroads in a preferred position with regard to coal cars when such transportation was scarce. For more than fifteen years the Interstate Commerce Commission recognized the right of a railroad to obtain its fuel supply by "assigned cars" either from mines which it owned or from mines the entire output of which it purchased. If its contracts for fuel covered such supply as it reasonably needed for current operation, it could use all the cars it chose to procure this coal, even though operators of commercial mines were thereby deprived of some cars which they would have received on a strict prorating of the available supply. By a ruling taking effect on November 1, 1923, the Interstate Commerce Commission banned the assigned car privilege. This new ruling should prove of influence in stimulating more storage of coal by some of the railroads, because in time of shortage they will not be able to neutralize their failure to plan ahead by assigning all the cars to their own mines or to those with which they have contracts.

But one unfortunate practice persists which may weaken the effect of the ruling with respect to assigned cars. This is the right of arbitrary seizure of coal in transit. This power has its justification under emergency conditions against which the railroad could not have provided, but it can easily be abused, and it has been abused. The ruling of the Interstate Commerce Commission recognized the evil of coal confiscation, and its injustice to those for whom the coal was intended, but did not forbid the practice. If it can be restricted so that the railroads will have to plan their purchases further ahead, it will be an aid to the stabilization of coal demand.

¹ *Award and Recommendations, op. cit.*, p. 27.

7 *Electrification and Superpower*

The substitution on a large scale of electricity for steam is looked upon as one of the most promising possibilities of stabilizing the coal industry, at the same time that it is advocated on other economic and engineering grounds. Under electrification the consumer would have little or nothing to do with coal. Power and, within certain limits, light and heat, would be supplied from huge plants, located most favorably for all concerned and almost independent of railroad traffic and other transportation in the transmission of service.

The possibility of achieving economies through a superpower system in America was the subject of a technical investigation recently by the United States Geological Survey. It is stated that the storage facilities required "would effect partial stabilization of mining and the transportation industries through bringing about a more uniform demand for fuel."¹ Some of the plans suggested by well-known authorities who advocate electrification appeal powerfully to the imagination. Power plants near the mines could burn all the coal which tends to produce combustion. Those power plants not near the mines would be so located that place would be reserved for huge coal supplies. Thus, near New York City it is proposed that the whole metropolitan area be served by an enormous central power plant located at Newark, N. J., where there are meadows which provide a very convenient point for traffic and are near unlimited storage possibilities under water for soft coal. However, whatever be the merits of superpower, the remedy is at best an ultimate, not an immediate one.

¹United States Geological Survey, *A Superpower System for the Region between Boston and Washington*, Professional Paper 123, by W. S. Murray and others (Washington, 1921), p. 222. For other interesting material discussing the various phases of the subject, see the Giant Power number of *The Survey*, March 1, 1924; the *Final Report* of the Coal Conservation Committee of Great Britain (London, 1918), 89 pp.; an item on "Giant Power" in *The Survey* of October 15, 1924, p. 84, and an interesting interview with Henry Ford, in *Collier's*, October 18, 1924.

8 *Individual Mine Management*

The attention given to the broad economic and governmental problems should not obscure the responsibility of the individual mine operator for those conditions within his control. In view of the unfavorable criticism of managerial direction in the coal mines found in mining literature, it may be assumed that good management technique is at least as necessary in this industry as in those previously discussed. A chronic complaint of the individual mine operator concerning irregularity of employment is "car shortage." This claim is so prevalent in the trade that it needs examination.

Car shortage may be due to many causes, some for which the railroads may justly be blamed and others for which they are not responsible. Often the requests for cars for coal shipments are not based on orders received, but on the fact that many operators conceive a "hunch" that they can dispose of a good deal of coal. The situation is made worse when these operators ask for more cars than they need, so that they may assure themselves of the part they do need. If at such times all who wanted coal cars got them, so much coal would be put in transportation that the price would collapse. Then not "car shortage," but "lack of orders," would become the customary explanation of idle time. For there is only a limited amount of coal that may be sold in any year. Indeed, the coal industry may perhaps be said to be fortunate that its product is so bulky, for the limited transportation facilities curb excess production and prevent glutting the market. One of our best known experts is clearly of the opinion that, for the most part, "car shortage in time of active buying has been the sole influence depressing the peak of seasonal demand," and the difficulty of getting coal has been a lesson to consumers to lay in a reserve supply the next year during the spring and summer.¹ Coal operators could overcome failures in car supply in part by providing temporary storage reservoirs. Storage at the mouth of the mine is not the best means of overcoming seasonal demand, but such storage for shorter periods in order to keep production at an even keel is most desirable.

¹ F. G. Tryon, *op. cit.*, p. 65.

9 *Cyclical Changes in Demand*

One word more need be said to indicate the close relation of the bituminous coal industry to other industries. It may be numbered among those least able to overcome the fluctuations of demand associated with the business cycle. Its progress in regularizing annual output, therefore, will depend largely on the progress made by our economic system as a whole in stabilization.

III "DECASUALIZING" DOCK LABOR

In earlier chapters it was shown that on the waterfront there are most flagrant and inexcusable examples of casual labor, resulting chiefly from lack of coordination of labor requirements among the various dock employers. It will now be shown that some astonishing results have been achieved in just that field when employers have gotten together to solve their common problem. Were it desired to go into the subject into considerable detail and to show the results abroad, the author could point to important progress in a number of the continental ports, such as the plan on a section of the London port, the famous Liverpool scheme, and the systems in other places on the British waterfront.¹ An American example of cooperation, however, though standing alone, is in many respects as interesting as some of these English schemes. The author will limit himself to a discussion of this instance. It is the waterfront plan in Seattle, Washington, which includes some twenty-seven firms, with about 750 longshoremen and truckers.²

Unlike the schemes in the British ports the Seattle plan is not based on collective bargaining with the union. It is, however, based on joint organization through employee rep-

¹ A recent book describes these experiments well, supplying a great deal of practical information on the various details. E. C. P. Lascelles and S. S. Bullock, *Dock Labour and Decasualization* (London, 1924), 201 pp. The writer has reviewed this book somewhat at length for the *Journal of the American Statistical Association*, of March, 1925.

² The plan is outlined in *The Survey* of October 15, 1922, and in printed material issued by the Joint Organization of Waterfront Employers Association of Seattle with The Longshoremen.

resentation, and has the support of union men. The employers claim that in this experiment there has been no effort to eliminate the union worker, and that perhaps as many as 90 per cent of the men are members of the longshoremen's union. It is possible that under a union agreement the difficulties of carrying out the plan explained below in a single port would have discouraged the employers from seeing the scheme through. It is stated that the workers are entirely in favor of the plan of joint organization, as evidenced by the fact that, although the vote for it was only three to two when first instituted in January, 1921, they gave it a unanimous vote in January, 1922. It is also stated that at the convention of the longshoremen's union, spirited defense of the plan against attack by men from other ports was made by Seattle members working under it.

One of the first activities of the joint organization was to organize a Joint Employment Committee, and "to place in the hands of the Joint Employment Committee of four employees and four employers the authority and responsibility to so control the number and the selection of men eligible to work on the waterfront that there will always be a good assured living for those who are registered and at the same time enough skilled men available for the fluctuating demands."¹ The collection of monthly payroll statistics was one of the first things started. This soon furnished an accurate work record of every man on the waterfront and his monthly earnings. Improvements in the hiring process were then inaugurated. Each company agreed to limit the responsibility of hiring to a single foreman, and also to the principle that these foremen would hire all their new men from a central dispatching hall, as explained below.

The elimination of the surplus of longshoremen was then begun. Through a process of central registration, the lists were soon closed to new men. Floaters were barred from returning to the beaches, and the unmistakably incompetent eliminated. In the meanwhile business conditions in the docks had improved. This, with the fact that the committee had barred new entrants and disqualified floaters and incom-

¹ *The Seattle Longshore Log*, June, 1923. (Published by the Joint Organization at Seattle.)

petents, brought about the point of "no surplus" even sooner than was expected. As compared with 1,420 longshoremen registered as eligible workers in September, 1920, the list contained only 612 in August, 1921.

The way in which central hiring is carried out illustrates how the plan works. Labor for all ships is secured through a single dispatching hall. This does away with the evil of having a miscellaneous group of men "lining up at the ship's side" at each dock, in the hope of being picked for work. The men need not report personally for a job, but may inquire from home by telephone. An employee's leisure time need not, as heretofore, be used in fruitless wandering from dock to dock, or in waiting at some beach, but may be spent at home. Loafing time has been reduced to small proportions. Men employed by several different companies in a single week do not have to make a tour of each when pay-day comes. A centralized payment office is available at the dispatching hall, used by almost all the firms, except those which can be easily reached by the men and which have convenient pay hours.

The "gang system" now in vogue is hailed as a great improvement over former methods in use on the docks. Under this system the men are organized in teams or fixed gangs, in accordance with their ability to work together efficiently. It is claimed that the gang system has revolutionized dispatching, and that accurate, rapid service twenty-four hours a day is furnished to the companies in the plan.

The gangs are of three kinds—company gangs, hall gangs and an "Extra Board."

The company gangs are selected by the shipping concerns individually to work exclusively for them. Each company is expected to select only as many gangs as it can employ on a reasonably steady basis. Generally these are the picked men, and efforts are made to establish lines of promotion within the grades of work done by individuals in these gangs.

The hall gangs are reserve gangs for the docks as a whole, formed by the Joint Employment Committee and held in reserve at the central dispatching hall for call when needed at the dock of any particular company. These hall gangs

are adequate to meet all but exceptional peaks of labor demand. When the need occurs, available casuals not registered at the dispatching hall may be used, but the plan is that if such casuals wish to acquire a status on the authorized list, they will be given preference when a vacancy occurs, if deserving.

The extra board consists of men on the official register of workers who cannot work in gangs or who do not want to work regularly. It is a catch-all of men not in gangs and has presented many difficulties. Men on this board do not have to be on hand for jobs as needed, and the list is larger than required. It has been recommended by the industrial-relations manager that steps be taken to keep this board within limits needed for replacements and additions to gangs, by putting as many of its members in gangs as possible, and in requiring the consent of the committee for any man to transfer from a gang to the Extra Board. The Extra Board would thus be the elastic reserve of the gang system.

In support of better distribution of the labor supply, other methods are used to steady work. A certain amount of planning of labor requirements is carried on and orders for work are anticipated through information collected by wireless of reports of ships due to arrive, including stowage plans, kind and quantity of cargo, its distribution by hatches, time and place of docking, and the probable number of longshoremen needed. The amount of casual labor required has been reduced by mechanical improvements. In the *Seattle Longshore Log*, of January, 1923, published by the joint organization of waterfront employers and workers of Seattle, there appears the following item:

One of the surprising changes in the last year and a half on this waterfront is the very small number of truckers needed to do the work. At the present time there are registered only 224 truckers; of this number 129 are dispatched out of the hall, the rest working regularly as company truckers. An explanation of the exceedingly small number of men needed on the docks may be found in two principal reasons; first, the increased use of improved machinery for handling cargoes on the docks, particularly the "jitney" and piling machinery.

The greater regularity of work has played a considerable part in augmenting the men's monthly earnings. These increased between January, 1921, and December, 1922, although hourly rates were reduced almost 12 per cent in August, 1921. Of course, business conditions had improved, which had a good deal to do with it. A statement of the wages earned during the six months July to December, 1923, shows that the average monthly earnings of the men who were not absent for more than ten days in the month ranged from \$150.73 in August, to \$171.08 in October, and it is claimed this is higher than the former average.

More important by far, however, than the increase in the average, is the fact that the average here represents more nearly what the men earned individually. Under the haphazard "picking system" which existed formerly, there were extremes. Men were picked from the groups that applied every morning, so that it was possible for some to earn very high wages because of regular work and overtime, while others got only three days a week or less.

In November, 1923, the dispatching hall was moved to a building originally constructed by the Quartermaster Corps of the Army, containing 7,000 square feet of floor space. The building is airy and well lighted. It contains offices, a committee room, a library, lavatories, lockers, pool tables, checkers, and card games. Many good results upon the character of the longshore personnel are claimed. One statement says: "Two-thirds of the men are married—four-fifths are citizens. Each one is a full-time waterfront worker making the beach his source of livelihood. There is, roughly speaking, just enough men to meet the demand, with no surplus." Which proves that if employers take the matter to heart and the employees cooperate, casual labor can in large measure be made into regular labor.

IV WHAT CAN BE DONE ABOUT FARMING?

Many of those who have followed the argument thus far may raise the question, What can be done about farming? Is it not an example of an industry inherently seasonal? Some look upon farming as presenting insuperable obstacles

to regularity of employment, requiring the movement of large forces of workers from industrial centers at the peak-load periods. Others welcome this opportunity of using labor as helpful in absorbing the excess of workers laid off in industries at certain periods. In so far as the subject of the discontinuous nature of farm labor has been discussed at all, it has been concerned mostly with the efficient movement of workers in the labor market.

This section will attempt to throw some light on two problems: first, to what extent the peak-load character of agricultural requirements for labor may be reduced by better management; second, what may be done to provide for the seasonal requirements remaining after the effort to regularize operations on the farm itself has been made.

1 Improved Farm Management

Few realize that a good many of the principles which regularize industrial operations, such as planning, diversifying the output, and mechanical improvements in process, apply to a considerable extent in agricultural operations. In presenting some instances of this sort, the author wishes to make it clear that it is not believed that the whole problem of seasonal farm labor can be solved that way, but only that some important improvements are possible. Also, in considering the general possibilities, it is no more justifiable to overlook the particular circumstances of individual farmers than it would be to overlook the circumstances of individual businesses. If individual manufacturers do, in some cases, conduct their businesses in a way that makes for costly and unnecessary discontinuity of operations, similar inefficiency is not unlikely in agricultural administration.

(a) Diversifying Farm Operations

Among the things which may be done by individual farmers to lengthen the working season is the diversifying of farm operations. The adoption of dairying, of live stocks, and of additional kinds of crops has been recommended. A bulletin on farm labor in Wisconsin urges that if each

farmer would use the extra men all winter who could do so without serious loss, the situation would be greatly improved. It advocates, for this purpose, winter dairying, because milking, cheese-making, and chores on winter dairy farms keep a good portion of the summer force reasonably busy all winter. In a table comparing ninety-one summer and ninety-one winter dairy farms, it is shown that the peak load of men employed on summer dairy farms is nearly 100 per cent greater than the winter force, but that on winter dairy farms the summer force is only about 50 per cent more than the winter force.¹

Correspondence with the United States Department of Agriculture developed that there are many farm enterprises maintained mainly for the reason that they help to make employment on the farm more steady. Crop diversification is one method relied upon. The department calls attention to the growth of wheat on corn farms in the central corn-belt states. Corn leaves an idle period extending from early in July until late in September. It is stated: "Where the soil is at all suitable to winter wheat, farmers usually add this enterprise for the reason that the labor required by the wheat crop falls almost altogether within the idle period left by the corn crop."

The keeping of live stock gives occasion for diversifying crops, for corn, hay, and the sorghums are planted principally as feed. A policy of diversifying operations is likely to prove profitable to the farmer. In answer to an inquiry concerning the possibilities in the wheat-growing districts, the secretary of the Kansas State Board of Agriculture, in a letter to the author, writes:

Animal husbandry is a year-round job and requires regularly more labor than one who devotes his energies almost exclusively to wheat growing, for instance. Dairying is one of the best types of live-stock husbandry for steady and continuous employment, as well as for safety in investment and sureness of regular monthly or weekly returns.

¹ *Farm Labor in Wisconsin*, Bulletin 316, of the Agricultural Experiment Station, University of Wisconsin, June, 1920, p. 39.

The development of the Valencia orange is a noted example of crop diversification. It is grown both in California and in Florida, and it is the most important late-ripening variety of orange. In California, the Washington Navel, the main variety grown, is practically all harvested and shipped during the winter and spring months. Then the Valencia variety comes into the market during the summer and early fall months. Before the Valencia was extensively planted, there was very little shipping of oranges from California during those months.

The effect of this on employment in California will now be shown. The picking operation for each individual grower is performed by the local packing house association of which he is a member. There are approximately 250 such associations in the citrus industry and each maintains one or more picking crews. The continuity of employment of such crews is dependent upon the diversity of the varieties grown by the membership of the association. Where the bulk of the holdings are of one variety, the picking crew, which rotates between the orchards of the constituent membership several times within the season, is employed only within the harvesting season of that variety. But where the holdings are pretty well divided between Navels, Valencias, and lemons, the employment is continuous. It should be borne in mind that lemons are, generally speaking, a year-round product, fruit in all stages of development being on the trees at one time.¹

With the diversification of operations and crops, there needs be associated careful planning of work and a measure of harvest control. The planning of all the farm work so that every operation that can be so arranged will be fitted in during the dullest times is urged in various practical studies of farm management.

(b) More Machinery, Less Labor

The peak load of labor in farming could be considerably reduced by the greater use of mechanical means of doing the work. A report adopted in September, 1923, by the

¹ Information supplied by the secretary of the California Fruit Growers' Exchange and by the U. S. Department of Agriculture.

Industrial Relations Committee of the Philadelphia Chamber of Commerce, points to the fact that Thomas D. Campbell, president of the Campbell Farming Corporation, developed the largest wheat farm in the world in five years, using only 100 men per 10,000 acres, a direct saving of four-fifths of the man power usually needed. This was accomplished with machinery and modern methods—machine units that plow, disk, pack, and seed 640 acres a day, machines that harvest, thresh, and deliver wheat in one operation. Modern business methods are the things to which he attributes his success.¹ Of course, all farmers cannot afford to buy extra horses and larger implements to save man labor, but if a larger number do so the situation will be improved.

The same principle applies to other peak load industries connected with farming. A bulletin on the pea-canning industry states that some of the canners claimed that one cleaning machine of a certain make did the work of eight girls. A cap-placing device does away with the need of two skilled workers. The thistle separator will save the work of many pickers. Obviously the installing of such machines has a direct bearing upon labor supply, and if it is important to reduce the seasonal requirements, machinery is one important way.

2 *Special Labor Reserves for Peak Loads*

Whatever the extent of the possibilities of regularizing operations may be, the farm labor of many localities is likely, for many years, to remain in an unbalanced condition and, therefore, to require temporary outside assistance at the peak loads. How this may be arranged for without creating a class dependent solely on peak-load farm occupations for a living will now be illustrated.

(a) *"Labor Outings"*

The United States Department of Labor has long urged the desirability of experimenting in securing the much-needed

¹ An interview with Mr. Campbell was reported, with illustrations, in the *New York Times* of December 7, 1924.

help for the grain belt at harvest time by special arrangements with industrial establishments which normally have suspensions of work at that time. The advantages of this plan of "labor outings" are strongly presented. The department recognizes that the physical strain of harvesting is exceptionally severe upon workmen unaccustomed to it. But it believes that a sufficient supply could be obtained to meet harvesting needs, and that by rational organization for the purpose those who went to the harvest could be returned to their regular industrial work at the end of the season. The department hopes to have these workers go in organized clubs or groups, under supervision of department officials. It therefore anticipates that such labor outings would have in them the elements of a personally conducted excursion to the country. The elements of control included should aid in its success, and the conditions of work involved should reduce the "stealing" of workers and other disadvantages. The experiment was not made, largely because of the expense of transporting these workers. For this and other reasons the department has urged ever since 1915 that the Interstate Commerce Law be amended so that the commission might approve, at its discretion, such special arrangements as the department might find it possible to make between itself and railroad companies for the transportation of workers under its official charge and guidance.¹

(b) The Boys' Working Reserve

The use of city boys for farming has been advocated by agricultural specialists. In April, 1917, the United States Employment Office organized the Boys' Working Reserve as an aid to the prosecution of the war. Upward of 300,000 boys between sixteen and twenty-one years of age were enrolled by March, 1919, and they nearly all went out from cities and towns to engage in the seasonal labor upon the farms. The report of the Secretary of Labor for 1919 claims that "Reserve high-school boys made good on the farms in

¹ Secretary of Labor, *Eighth Annual Report* (Washington, 1920), p. 45.

over 90 per cent of the cases studied.”¹ The emphasis is put on the advantages of previous training provided by courses in the elements of farm practices and farm machinery, such as those given during the war by various secondary schools, as well as by agricultural schools.

From a practical standpoint this kind of activity will not affect the problem in any important way. Nevertheless, if farmers will organize locally for the common use of labor, as they have done for marketing, the problem of making arrangements of a special sort for peak-load work will be simpler, because done with associations rather than with individual farmers.

3 *Work of the United States Farm Labor Bureau*

In the absence of interest in eliminating the seasonal character of labor and of means for making arrangements to provide special reserves, the United States Employment Service has done merely what was necessary to secure labor for the farmers. It has maintained a special farm labor bureau for the purpose of assisting in providing for crops requiring seasonal labor, and has conducted this work chiefly in the Middle Western States. The principal function is the recruitment, clearance, and distribution of between 70,000 and 80,000 workers for cutting of the wheat harvest in the grain belt, which begins in Texas in June and extends northward, winding up with the cutting and threshing period in the Dakotas during September. For this purpose the farm labor bureau has maintained permanent headquarters at Kansas City, Mo., and up to twoscore temporary employment offices during the harvest season in all states in or adjacent to the Wheat Belt. These employment offices have tried to avoid the confusion that has long existed in the recruitment and distribution of harvest workers. From the central office in Kansas City, the farm labor bureau has attempted, by the aid of reliable information from all points involved, to co-ordinate the work of the various offices and to recruit labor from communities where the least local disturbance due to

¹ Secretary of Labor, *Seventh Annual Report* (Washington, 1919), p. 286.

this movement would ensue. Efforts were made to encourage the recruitment of workers within a zone in the grain belt, and to discourage other wage-earners from migrating to the harvest fields from points beyond the zone. Naturally, these efforts succeeded only in part. As usual, the Secretary of Labor complains of the problem of rail transportation. He says it was "very perplexing and trying. Special rates to harvest workers, under proper regulations, would do much to solve the problem."¹

Hampered as the service is, the field of agricultural labor is infested with workers of the migratory or shiftless type, and exploitation of the better class by unscrupulous commercial employment exchanges is encouraged. With the small staff available, the cooperation of the labor departments of the several states, of county farm agents, chambers of commerce, and kindred organizations must be relied upon more than is desirable. Over 113,000 harvest hands were recruited and distributed in the fiscal year 1923 to harvest the cotton, wheat, corn, potato, and sugar-beet crops, and favorable press comment on the farm labor bureau's work indicates its usefulness.² But an intensive study of the situation by the Russell Sage Foundation shows the many gaps in the service, and stresses the great need of a well-organized and well-supported federal employment service. This, however, is the subject of the next chapter.

¹ Secretary of Labor, *Tenth Annual Report* (Washington, 1922), p. 30.

² Secretary of Labor, *Eleventh Annual Report* (Washington, 1923), pp. 36-37,

PART III

SOCIAL AND GOVERNMENTAL
REMEDIES

CHAPTER XIV

COORDINATION IN THE LABOR MARKET

I NEED OF COORDINATING AGENCIES IN THE LABOR MARKET

A STORY told by an employment office executive of Indianapolis illustrates the lack of coordination generally found in the labor market. He states that a travel-stained carpenter applied for a job to a contractor engaged in building some houses in a suburb of Indianapolis. In answer to the contractor's query, "How far have you come?" the man replied, "I've walked from the soldiers' monument." He explained that he had spent his last penny in reaching the summit of the monument, so that he could obtain a view of the surrounding country, in the hope of locating new work under course of construction.¹ The analogy is then made that, like the monument in this story, bureaus for facilitating employment are pinnacles of observation, constituting the short cut between supply and demand.

No one who has any acquaintance at all with the problems of looking for a job or finding a suitable employee can doubt that some agency for facilitating the finding of jobs and employers must be provided. If in the one city of New York a thousand workers exactly alike in ability were available, and fitted for 1,000 vacant jobs, also identical, would this perfect matching of requirements eliminate all unemployment among these thousand workers? Within the labyrinths of even this one small area, many workmen would not learn of the openings until they had trodden the streets for weeks, perhaps for months, and others would not find the jobs at all. If this would be the case under the theoretic-

¹ Andrew J. Allen, in U. S. Department of Labor, Bulletin 192 (1916), p. 53.

cal assumptions, it can at once be seen how much more friction in placement there exists between trades and localities under actual industrial conditions. For the general term "labor market" is somewhat deceptive. The actual labor market for anyone seeking a job is a specific thing, limited by the character of the work, its location, and the personal qualities expected of the applicant. Similarly, "labor supply" is too general a term, for it consists of millions of persons, of different ages and aptitudes, and living in different localities. There may be a "shortage of labor," and yet hundreds of thousands of workmen be unable to find employment. There may be a "plentiful" labor market, and the employer be unable to get the workers he needs.

The most inefficient and wasteful system is to leave the matter to chance. It is also one of the cruelest, because of the flagrant abuses practiced by disreputable commercial employment exchanges. The advantages of a service for mating applicants with jobs seem so patent that the author will not take time to urge the need. There has not been a single study of unemployment that has not recommended one type of clearing house or another.

Nevertheless, it is better to begin the discussion of the subject of public employment exchanges with skepticism than otherwise. The theoretical opportunities of public employment bureaus in a more perfect industrial state have been given too much attention. Some preposterous impressions have been given by enthusiasts who have not studied the detailed problems. One author of a college text-book, to prove that the reorganized Federal Employment Service was a success, asserts: "It was not uncommon for an \$1,800 examiner to place a \$15,000 engineer or executive."¹ Public employment exchanges have severe limitations. It may be stated in advance that the most significant adjustments of the labor supply have been made where undertaken by the industry itself, as in the case of the Seattle plan, described in the previous chapter. The least opportunity for systematic action has presented itself where the agency is a public bureau, with no special relation to a particular indus-

¹ Gordon S. Watkins, *An Introduction to the Study of Labor Problems* (New York, 1922), p. 244.

try. Yet it will be shown that even if it cannot do all that is claimed for it, the aggregate usefulness of a comprehensive employment system should make it of enormous benefit to the country.

The purpose of this chapter is not to make an exhaustive analysis of the various elements of public employment exchange work, but only of those features which may actually assist in regularizing employment. For this reason, the question as to how far "dovetailing" of work between plants may be carried on, to what extent labor can be moved about between localities, how "decasualization" may be brought about and similar matters are treated at length, while the customary features are touched upon only lightly. The latter have been amply covered in numerous studies available, containing everything from historical and descriptive accounts to the details of administrative routine and procedure. Many of the problems of employment clearance are, however, brought out in the discussion of the main subjects treated. A practical insight into these problems is gained, for example, by a consideration of "the systematic dovetailing of employment," a proposal so frequently made in the literature of unemployment that it is everywhere assumed to be an important solution of the problem. Analysis will show, however, that the measure has usually been advocated without taking the realistic phases of the matter into account. For this reason the subject well deserves critical reexamination.

II IS SYSTEMATIC DOVETAILING OF EMPLOYMENT PRACTICABLE?

The basic idea of "dovetailing" employment is simple. If it is found that in a certain locality a factory is slack in December, while a neighboring department store or other business is at its peak load at that time, perhaps because of the Christmas rush, the excess of workers in the factory should be sent to the department store temporarily, then shifted back when the factory requires extra labor. An ideal statistical curve of employment of two such firms or industries would show a recession of employment in

the one firm that occurs at exactly the same time as the increase in employment in the other, so that when fitted together the curves dovetail like the ends of a box. It should be borne in mind that dovetailing involves a regular interchange of workers *between different plants*. Placing an employee in different jobs within the same plant has been called systematic transfer and has already been treated.

Some of the advocates of "dovetailing" do not limit the idea to interchange of workers within the boundaries of a locality, but see possibilities that extend over the whole country. They are so intent upon demonstrating the need of employment clearance that they tend to reduce the problem to a matter of simple mathematics. There is, however, the danger of being over-impressed by statistical abstractions. Demonstrations showing that certain trades are idle while others are slack may mean little. As one study shows, the 600,000 teachers, 610,000 sales persons and clerks, and the 50,000 women's clothing workers unemployed in summer are mostly women, while the summer demand is for carpenters, masons, building laborers, sailors, brickyard workers, and stone quarriers and for about 160,000 extra chambermaids.¹

The possibilities of dovetailing are best understood if considered without such mitigating elements as the common ownership of the plants between which it is carried on. Common ownership does away with the need of outside assistance in making the adjustment, and, therefore, does not present the major problem. Examples have been given of this type of dovetailing. The Columbia Conserve Company, as shown in Chapter XII, interchanges some of its working force between its canning operations and its farming, transporting the employees between the factory and the farm in a company bus. There are several instances of canning firms which also conduct lumbering and use part of the same force on both types of work.

Furthermore, the *systematic* dovetailing under discussion precludes consideration of the informal change of jobs

¹ Hornell Hart, *Fluctuations in Unemployment in Cities of the United States, 1902 to 1917*. (Study from the Helen S. Trownstine Foundation, Cincinnati, Ohio, 1918, p. 57.)

which many workers secure through their unaided efforts, as when carpenters take work in piano factories at certain seasons. If this shifting about is not the result of a systematic plan of an industrial or public agency, it will not regularize employment. Individual workers may be able to reduce the period of unemployment in slack seasons, but the process will be more or less haphazard.

A discussion of the practical possibilities of systematic dovetailing requires that the circumstances under which it is proposed that it be carried on be considered. It makes a good deal of difference whether the plan of dovetailing is between jobs involving the same work or totally different work, between plants in the same trade or in different trades and between plants in the same locality or in widely separated localities. The possible combinations of circumstances are numerous, and each has its own set of complications.

1 Difficulty When the Work Is Different

Often an outsider will see what seems an obvious opportunity of dovetailing labor requirements, yet more detailed study may show that the possibility hardly exists. For example, in examining a report on the seasons of employment of the various building crafts in Boston, the author was impressed with the fact that there were exactly 200 roofers and slaters and 200 asbestos workers in the market, and that the seasons of the two trades were entirely opposite.¹ By inverting one of the graphs, the two could be made to fit almost exactly. It was logical to conclude that an ultimate remedy in this market was to have men in one craft learn the other, and in time to reduce the number needed in the market to a group sufficient to carry on both operations. Investigation revealed, however, that the conditions of work in roofing and slating were such that few asbestos workers were fit for it or would consider it. Roofing involves work in the broiling sun, and is dangerous and disagreeable. It is an employment for an active man who has perhaps had seagoing experience that enables him to climb and to balance himself. Building-trades officials say that very few

¹ Boston Building Congress, "Report on Seasonal Labor in the Building Industry," a folder issued on August 15, 1921.

asbestos workers could be gotten to work at the other craft. Here is an instance of work that involves the same sex, the same industry, the same locality, similar wages, and exactly opposite seasons. Yet the opportunities of dovetailing are extremely limited.

There is also the disadvantage that the other work may impair skill. Even in the same occupation there are differences which count. One study shows that in the millinery trade certain types of retail millinery involve production of the finest sort, while experience in factory work, with which there is an opportunity to dovetail employment, involves speedy work on a piece-rate basis and is considered a "positive handicap."¹ In other cases the subjective attitude of the workers may be a bar. If, as was shown in Chapter XII, an employer has difficulty in getting his own workers to accept another job in the plant, the outside employment agency will probably have a great deal more difficulty.

2 *Obstacles When the Work Is the Same*

Dovetailing jobs between different plants is possible, however, without involving a change in the nature of the work to be done, or it may be an acceptable change. Several other difficulties arise, however. The opportunity presents itself only when the slack season of one industry occurs more or less regularly at the peak-load period of the other. Such a coincidence of two variables is rare. A detailed study of the opportunities of dovetailing the work of women in New York State shows that in practically all the industries examined, variations in requirements followed the same general course, and that there is so much overlapping between those which differ as to make systematic dovetailing seem impractical.² If the slack season of one trade is somewhat delayed, an employer in the complementary trade will not be willing to wait for those workers, but will hire others in the open market. Besides, manufacturers are not interested in employing workers from some other industry who may leave them to return to that industry before their own season is over.

¹ Mary Van Kleeck, *A Seasonal Industry* (New York, 1917), p. 92.

² *American Labor Legislation Review*, June, 1915, pp. 301-303.

It is therefore clear that, on the whole, dovetailing of labor is most feasible for unskilled labor of the type that is willing to take casual work for whatever period is involved. The employer will not be as much hampered by the inability to get any particular set of men, and the workers involved are not dependent on the work of any one industry.

3 How Assure Return of Workers Dovetailed?

When labor can be used interchangeably in different plants or industries, those businesses are competitive with regard to a common labor supply. This has elements of danger to one of the firms cooperating in the dovetailing process. The foreman in one of the shops may make conditions so pleasant for good workmen as to make them believe that such conditions are permanent. They may thus become adverse to leaving and stay. The piece rates paid may be much higher, tempting workers away from their industry and leading others to ask for higher wages on their return. If the dovetailing has been with a neighboring town, the worker may find that he likes the social conditions so much more there that he may decide to stay there. The employer who loses workmen by this process of dovetailing will, therefore, prefer to have the industry maintain an idle labor reserve waiting for the factory to start, rather than support a measure which appears to him so adverse to his interests.

It may be suggested that means are available to eliminate the abuses of "stealing" labor. This requires a strong control of the workmen in the market. The methods by which this may perhaps be secured require examination. Three possibilities are open: control by the union, where a strong union recognized by the employer already exists; control by the organized employers, where no union exists, and control by joint action of the employers and the union. Each will be considered in turn.

(a) Control by the Union

Present trade-union ideas and regulations are unfavorable to dovetailing. If this is attempted between two different trades separately organized the situation is well-nigh hope-

less. The obstacles to intraplant transfer, shown in Chapter XII, apply here in magnified form. A man who abandons his own trade for a while may lose his right to benefits and at the same time be ineligible for perhaps a year for the benefits of the trade into which he transfers his labor. Where seniority rights exist, a man who has valuable rights in one printing shop or railroad hesitates to go elsewhere where he begins at the bottom of the list. Even when transfer is attempted in the same trade, objections arise. In the women's garment trade, one firm loaned two pressers from another factory. The workers sent objected. The incident caused so much more trouble than it was worth that the firm took the union's advice not to stand on its rights and never tried this procedure again.

The opposition of the union to dovetailing is partly tradition and inertia, but is also supported by economic reasoning. One intelligent labor leader's objection to dovetailing is as follows: Where the employer is at liberty to hire workers as he pleases, without considering whether or not he is overstocking the market, each craft must protect its own members. The proposal to dovetail employment between crafts, localities, and plants would give full time to part of the labor supply and make conditions worse for the others drawn into the market. Therefore, until the employers allow the union to limit the supply, or will cooperate with the union in jointly reducing the available workers to normal needs, the union must apply the principle of equal distribution of employment rather than assist in dovetailing operations for the benefit of a favored few. One could demonstrate ultimate advantages of the dovetailing process, but the immediate ones have more weight in the eyes of the members.

Finally there is the question as to how far the power of the union over its members can be exercised. To control the workers so that the dovetailing process will be a success, more or less elaborate procedure and machinery must be established. An instance of such control is found in the Chicago clothing market.

Under the agreement between the Amalgamated Clothing Workers and the Chicago clothing manufacturers, an em-

ployer must secure his help through the union. If the union is unable to provide a suitable worker within forty-eight hours, the employer may hire the available workers wherever he can get them. The union has provided what is surely the best systematized industrial employment exchange in America. Any worker who becomes unemployed must register at the exchange before he may secure employment in the market or be eligible for unemployment benefits. The unemployed take their places on the list in the order in which they registered. If there are several hundred unemployed members in a craft, the worker has to wait until they are employed. As the employer gets the worker standing highest on the list and cannot freely exercise preferences among those in the market, the rule prevents the practice of "stealing" workers. To guard against connivance, a worker who quits voluntarily must have a leaving certificate, filled out by the business agent in each shop, to remain in good standing.¹

¹ This may have the disadvantage of restricting the ambitious worker who is willing to canvass every shop until he lands some work, but there are many compensating advantages of the more systematic method of allocating work practiced by the exchange. It puts an end to the weary tramping over the same ground by hundreds of unemployed. Often when a stream of workers competed for one vacancy, the employer was tempted to take advantage of the situation by making a secret agreement with individual workers for lower wages. The newer method has the additional advantage of giving an employee some idea of the length of time during which he may expect to be unemployed. If he is just a few names from the top of the list, he may not worry and will use the occasion to rest up or to do some work around the house. If he is so far from the top that three or four weeks of idleness seems likely, he will know better how to adjust himself to the situation and will use his time more profitably than under the uncertainties of the former practice. An especially valuable feature of this practice is the certainty that he will be called and that, therefore, he will not lose his connection with the industry or its privileges.

Many may wonder how this method of selecting workers by rotation affects the efficiency of the men on the job. The best protection to the employer in this case is the fact that most jobs in the market are on a piece-rate basis. The worker himself aids the interviewer in selection because he knows what he can do on various types of jobs, and if one is available on which he cannot make enough money he refuses it. Besides, a limited amount of discretion is exercised by the employment-exchange officers.

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With such a strict control over employers and employees by the union, it would be possible to conduct systematic dovetailing in a single industry with a minimum danger of plants losing the workers in the process. It involves, however, passing the whole employment function to the union. Employers fear a union monopoly. They will not voluntarily relinquish their right to select labor unless forced to do so by the power of the union. This method of dovetailing is, therefore, applicable in few industries.

(b) Control by the Employers

Where the labor supply in any locality is controlled by employers it may be possible for two firms to work out some dovetailing plan between them, but if more than two firms are involved an employers' employment exchange may become necessary. This method may have features as objectionable as the control by the union alone. Sooner or later the power is likely to be used in a discriminatory fashion. Government reports concerning employers' employment exchanges have usually pointed out and sometimes condemned their anti-union purpose.¹

(c) Control by Employers and Unions Jointly

The third possibility, control of the labor market under joint auspices, is the most desirable form, but is likely to be limited in practice. Even assuming that collective bargaining with the same union exists, dovetailing is unlikely because neither employers nor unions are likely to desire joint industrial exchanges. The unions want to retain control of the labor supply, while the employers generally do not want the labor market limited at all. Some employers do not care to participate in a jointly managed bureau because they fear that such a joint labor exchange would inevitably tend to

¹ United States Commission on Industrial Relations, *Final Report*, Senate Document No. 415, 64th Congress (Washington, 1916), p. 112; also Paul F. Brissenden, *Employment System of the Lake Carriers' Association*, United States Department of Labor, Bulletin 235 (Washington, 1918), pp. 24-28.

reduce the labor reserve in a locality, eventually giving the union greater hold on the workers than it has and leading in time to a closed shop. Besides, employers want to have selection for employment based solely on efficiency. They dislike the system of hiring in rotation, which, the unions feel, is the only just method. They fear that the union would protect the inefficient workers already in the market as against those who might be brought in from elsewhere. In one market the manufacturers fought the proposal of a joint labor bureau when the union proposed it as a compromise.

4 Conclusions

To summarize, one of the essential requisites of systematic dovetailing is control over both employers and employees, to assure return of the employees loaned out and to prevent abuses. Neither the union nor the employer is in a position to exercise such control, and they are not interested in exercising it jointly. A public employment exchange would be even less fortunately situated to assure employers of the return of the workers.

One is therefore forced to conclude, from the practical problems involved, that dovetailing of employment as a systematic adjustment is of decidedly limited application. The facts bear out this conclusion. If there has been a single case of systematic dovetailing of workers between plants or industries, as a regular exchange of two sets of employees, such an instance has not, in spite of somewhat diligent search, come to the attention of the author. There have been attempts, as, for instance, on the part of the Dennison Manufacturing Company, the Plimpton Press, the Filene store and others, but the efforts have proved unsuccessful and have been abandoned. Additional difficulties arise if dovetailing takes the form of moving workers between localities far removed from each other, for if it is impracticable to arrange regular and systematic interchanges of workers in a locality, it is far more impracticable to arrange it between distant places. The subject of labor mobility raises special questions, however, and therefore

consideration of it is reserved for a special section of this chapter.

In so far as a public employment exchange can have any part in it, dovetailing is applicable mainly in the case of those who have actually lost their jobs and do not have to be returned to their employers. Even here certain practical considerations stand in the way. It seems good theory that an efficient public employment exchange should try to send workers from one trade to a complementary one as often and as regularly as conditions permit, for thus workers will acquire a double skill and get as near full-time work as possible. But this assumes that the employment exchange will be willing to put the idea of full-time work for certain groups ahead of the attempt to serve all worthy applicants. If the employment exchange did have that ideal, it would be regarded by the majority of workers as unfair. It would be charged that the employment exchange discriminates in favor of those who have just left a job and whose work dovetails with another as against those able to do the work who have for a long while been out of employment and who deserve the job even more. This might get the exchange into trouble. It would, therefore, lean toward the policy of giving out jobs in rotation, as is done by many European and some American exchanges. Under these handicaps the efforts of a public employment exchange to dovetail employment would probably be confined to those cases when the number of jobs is large enough to allow the public employment exchange to get work for all, as this would give it the opportunity of exercising considerable discretion without bringing upon it a heap of complaints.

III PRACTICAL ASPECTS OF LABOR MOBILITY

Some reformers have advocated plans for moving labor between localities as if the difficulties involved were minor. This is true particularly of English writers. Perhaps the popularity of the idea in Great Britain is due to the fact that that country is only about one-twenty-fifth our size, has ten times as many people per acre and less than half our population. Certainly, numerous complications arise in at-

tempting adjustments in the labor market between distant localities.

First, there is the fare, which is often considerable. The true migratory worker pays no railroad fare.¹ A solution for the problem of transportation is possible, as shown below, but it is not an easy one.

Then there are the special objections associated with the moving about of certain types of workers. In the case of women and boys there are the moral and economic disadvantages of leaving home. The young girl requires shelter and protection. The married woman may have children. The married man with a family is also a poor pawn in the dovetailing process. He is normally tied to his home. Frequent temporary separations between husband and wife do not add to the stability of home life, nor is the absence of a wage-earner exactly the same thing as the absence of the traveling salesman who has left his wife with plenty of cash and who makes frequent trips back to his home.

The single man with no family ties is perhaps the best subject for changes in employment involving different localities, especially those types of work which include residence, such as that of the waiter. But there are grave disadvantages here as well. If any person's work is nomadic, the results are likely to be demoralizing. Migratory workers have everywhere been observed to lack those restraints of home life which bind them to personal regularity, and they are usually described as lawless, unskilled, indifferent, and separated in habit and circumstance from the rest of the community.

One of the troubles associated with moving workers about is that they do not promptly leave the locality when the amount of work becomes insufficient for all, but stay to compete against those regularly dependent upon the employment available in the community. Local workers who have suffered from the influx of workers from other cities have, when organized, passed regulations designed to keep the local labor supply down. In the agreement of April,

¹ One of the most interesting recent accounts of how migratory workers and hoboes get about the country is in *Beggars of Life*, by Jim Tully, an ex-hobo, a book published in 1924 by A. & C. Boni.

1922, in the Rochester men's clothing market, it is provided that before any new worker, or one from another city, may be hired, the employer must assure himself that no union worker wants the job who was previously employed in one of the firms signatory to the agreement. This policy was prompted by the severe depression of 1921, when workers from other centers in this industry made temporary pilgrimages to Rochester for employment. A permit system exists in some trades which keeps members of the same union belonging to other localities from drifting in.

Not all unions maintain this policy. Unions do aid in intercity distribution when scarcity of labor exists in a city.¹ The United Mine Workers tries to keep its locals from being selfish and barring mobility by the rule that "No legal holder of a valid transfer card . . . shall for any reason be debarred from membership in any Local Union or hindered from securing employment in any mine under jurisdiction of the United Mine Workers of America. Violations of this clause shall be prosecuted."² The union has even established reciprocal relations with the mining unions of Australia and New Zealand, so that mobility in theory extends pretty far.

As mentioned in Chapter XII, industrial unionism should not, however, be considered a final solution. A carpenter or teamster who is a member of the United Mine Workers cannot secure work in some other trade unless he joins either the carpenters' union or the teamsters' union, respectively. The field of employment of an industrial union is thus limited to one particular industry. The average mechanic who follows a job and not the industry would probably be better off in a craft union, because under craft-union rules a member is free to work in any industry provided he is employed at his customary trade. Thus neither industrial unionism nor craft unionism answers the purpose of dovetailing without greater cooperation between unions. Only interchange of cards or some other form of reciprocity

¹ Cf. D. P. Smelser, *Unemployment and American Trade Unions* (Baltimore, 1919), Chap. iv.

² Constitution of the International Union, Mine Workers of America, January 1, 1922. Article xv, section 17.

would make it feasible to attempt to dovetail employment in organized trades. Without this the friction involved would utterly discourage such efforts.

The conclusion is that on the whole, it is undesirable to base a system of labor clearances on the possibilities of moving workers about like armies. On the contrary, unless specially requested, jobs in different localities should be offered only when the alternative is starvation or permanent loss of status. The main effort should be to eliminate the need for mobility rather than to encourage it. Employers should be assisted in finding workers as near home as possible, not in distant places, and unless a special reason exists, the workers applying at public employment exchanges aided to remain where they are.

1 Provision of Transportation

In cases where the work offered involves railroad fare, the worker who has no money and needs a job is under a severe handicap. It has been urged that public employment services be given the power to advance the fare as a loan. In England the fare needed by a worker who has received a job through a public labor exchange is advanced to him as a loan. Since 1920, when the Unemployment Insurance Law was revised, workers who are within the insured classes need pay back only part of this loan. The Unemployment Fund pays half of the amount, if any, by which the fare exceeds 4s. The great amount of unemployment everywhere during the past few years has considerably reduced the need for such loans, since out-of-town placements were fewer. From November, 1920, to June 30, 1923, only 22,606 advances were made to workpeople by the exchanges, totaling approximately \$75,000. About one-fifth of this amount was charged to the Unemployment Fund.¹

During the war, when the United States Employment Service sent workers to locations where they were needed, transportation was advanced to the men from a revolving fund, and guards or pilots were sent with each group of

¹ Great Britain. Ministry of Labour. *Report on National Unemployment Insurance to July, 1923* (London, 1923), pp. 130-131.

workers to make sure that this fare was being used for the purpose intended.¹

Several remedies have been suggested. One is securing of special railroad rates to workers sent by public employment exchanges to definite jobs, just as lower rates are given to ministers, so that fewer workers will have to resort to borrowing. Since at least 1915, the United States Department of Labor, in its annual recommendations, has repeatedly asked for an amendment to the Interstate Commerce Law enabling the commission in its discretion to approve such special arrangements with regard to railroad fares as the department itself might find it possible to make with the various railroads for the transportation of workers under its official guidance.

The Employment Service of Canada has secured the co-operation of most of the large railways of Canada in providing a special transportation rate for persons sent to employment through the Service. About 50,000 persons are transported under this arrangement annually. The applications for the special rate on the part of employers desiring parties of workers have aided the Employment Service to cut down unnecessary mobility of labor. For when one firm asks for special transportation rates for a party to be shipped from point A to point B, and another firm asks for special rates for a like group of workers from the point B to point A, the Service is in a position to show that the special rate cannot be used to promote unnecessary traveling, and thus encourages the employer to seek his labor supply locally.²

2 *Substitutes for Labor Mobility*

(a) *Diversification of Industries Within a Community*

If a fluctuation in a trade is accidental or temporary, due to an exceptional amount of orders secured, the use of workers from other localities for the time is perhaps the

¹ Secretary of Labor, *Seventh Annual Report* (Washington, 1919), p. 269.

² Bryce M. Stewart, *The Employment Service of Canada*. (Bulletin of Queen's University, Kingston, Ontario, July, 1919), p. 16.

only way. But if such fluctuations are recurrent, as is true of seasonal variations, then the effort should be devoted to build up a local self-sufficiency, either through the diversification of products within individual firms or the diversification of industries.

The diversification of industries within a locality is not always achievable, but it is a goal which must be striven for if the local labor force is to be used efficiently within the local labor market. Paterson, New Jersey, began a campaign several years ago to secure several new industries other than silk firms within the city. Some progress in this direction has been made. The long-time purpose of securing the type of industry which will balance the labor force is the aim expressed by the local chamber of commerce, which is in charge of this campaign.

Diversification of the industries within a locality will have far-reaching effects. The greater the diversity of industries, the more regular the loadings and unloadings at the docks because of the variety of goods needed for the varying conditions of production at the various plants. In this way other employments, as, for example, longshore work, become less seasonal and mobility of labor is of less consequence. The public exchanges in a diversified community will be able to find more jobs for workers within the locality rather than have to look to other centers.

(b) Mobility of Technique

Another substitute for labor mobility in general is mobility of technique. Two instances of such mobility should direct attention to possibilities which need greater development. One of these occurred in the International Harvester Company. In the spring of 1924, one of the Eastern foundries had completed the manufacturing orders for the season somewhat too early for new work on the following year's production to begin. But at the same time the Deering and McCormick plants in Chicago were busy. Through the influence of the works manager group of the various plants, which meets weekly, it was decided to divert orders from the two Chicago plants to the Eastern

foundry. Orders for about 500 tons were thus diverted, saving the jobs of about 200 men who would otherwise have been laid off. In this dovetailing of work, the castings, were shipped, the men themselves stayed at home. The attempt to transfer the labor force is regarded as a last resort, to be used only in a period of great depression.

The second case is an instance of the avoidance of shipping workers between localities in which firms not under common ownership were involved. A Cleveland garment manufacturer found a New York firm which manufactures dresses of the same grade as its own and also some of a higher grade, but whose season happens to be later. This New York firm offered to manufacture at cost for the Cleveland firm during the earlier part of its manufacturing season, thus filling up its slack period. This arrangement was accepted. It was agreed that at the end of the year the two firms would split profits on these garments.¹ The many elements of friction in an adjustment of the labor market were avoided by having the work transferred between the shops, not the workers, for the latter could be retained on the payroll of the firms for which they were employed.

This is the form which "dovetailing" between firms in a locality and between localities should take wherever possible. For it is futile to make plans that involve the movement of labor in quest of temporary work when the work itself can be moved and the labor allowed to stay where it is.

3 Proposed Decentralization of Industry

The policy of decentralizing industries, which has been given prominence through the efforts of Mr. Henry Ford and other industrial leaders, may be visionary, but it certainly eliminates the need of moving labor between localities. Mr. Ford's plan, as outlined in his writings and in interviews

¹ This type of subcontracting is not the same as the subcontracting of an "outside shop," with all the baneful influences on the industry that such outside shop brings. Each of the two firms in the instance noted is an "inside" firm, manufacturing its own line and selling its goods under its own name. One firm happened to be slack, the other unusually busy. Work was passed from one to the other, serving to balance both.

which he has from time to time given out, is to locate as many industries as possible in little agricultural centers having water power. He also believes that each of the factories should be specialized ones, making some single part, if possible. Mr. Ford seems definitely opposed to building any more large plants.¹

He has already begun this decentralization in village factories on the River Rouge, in Michigan. He has said: "Some of the finest workmanship in our cars is performed in little shops that we have established on water-power sites in villages around Detroit—shops in which only one thing is made and made well. Every village should have such industries."² In answer to the objection that the village industries might not want to shut down when farmers wanted to put in or harvest their crops, he states: "There is no reason why they should not shut down. We let our village workers go home to work their farms whenever they want to, and are glad to do so. Manufacturers will simply have to get this idea, that's all."³ Mr. Ford believes it is the way an important section of industry is going to be conducted before very long.

In this connection it is well to note that Mr. Ford does not have in mind that farming will be done in the present inefficient method, but in accordance with certain novel ideas. He believes that by simplifying, systematizing, and organizing farming, the work of a fair-sized farm will be done in not to exceed twenty-five days during a whole year, and that animal husbandry will practically be unnecessary.

Decentralization of industry along the Ford plan is a captivating one, and much could be said in its favor. It has been urged in many quarters. It would make dovetailing of work between farming and industry a comparatively simple thing. The alternation of industrial with agricultural occupations has done much to alleviate the condition of the peasants in Northern Russia and is widespread in Belgium. There is some movement in that direction. The H. K. H. Silk Company, for purely business reasons, has established a good many little centers in New England villages where

¹ Henry Ford, *My Life and Work* (New York, 1922), p. 84.

² Allan L. Benson, *The New Henry Ford* (New York, 1923), p. 235.

³ *Ibid.*, p. 236.

the work is done by permanent local labor. Firms wishing to avoid union conditions have also established small shops in the country. One of the effects expected from superpower is the decentralization of industry with a tendency to return to small towns. But decentralization is still visionary—a remedy of the distant future at best.

IV OPPORTUNITIES OF “DECASUALIZING” LABOR

If the opportunities of employment adjustments considered are those which can be carried on principally within the confines of a community, there is one function which a public agency could do with signal success if given adequate power and facilities. This is the “decasualization” of casual labor. By this term it is intended to denote the process of so organizing the work of wage-earners who work intermittently or by the day that as many as possible are given full time work and only a small number left with casual employment. Complete decasualization of work in the labor market as a whole is probably not possible; but if the number of workers in the casual fringe is reduced to the minimum, a system of maintenance providing a subsistence wage for this group would not be so expensive and would serve to decasualize the wages earned.

The subject is important because casual labor is not confined to the waterfront, but is relied upon more or less by every industry, and used also in domestic employments. Therefore, progress in decasualization would make employment more secure for quite a large number of workers. For the present, the requirements of an attainable program of decasualization would be that after the maximum number of workers are put on a full-time basis, the remaining casual work be done chiefly by wage-earners who want just such employment, and that a preference system be established to give the rest in the group priority when permanent openings develop.

The Seattle waterfront plan, described in the previous chapter, embodies some of these elements. A plan on a larger scale is that on a section of the London port, including the London and India docks, under the Port of London

Authority. As a result of gradual development, the Authority's docks now employ about 4,000 men permanently, paying them on a weekly basis and granting them a week's annual leave as well as statutory holidays. The rest of the labor force consists of "B" men and casuals. The "B" men have tickets which entitle them to preferential treatment by the Authority when no permanent men are available and before any casual men are engaged. They number less than 3,000. The casual men appear on no list and are drawn from the margin of casual labor in the port as a whole. The significant thing is that the Authority claims that under normal conditions only 2 per cent of the men belong to this last group.¹ Perfection has not been achieved, but that substantial improvement has been made in the lives of workers employed by the Authority is seen if comparison is made with the work of those in the rest of the port.

1 Importance of Centralized Hiring

The achievement of decasualization in industry as a whole involves three main steps. The first, considered in Chapters XI and XII, is the reduction of the need for temporary outside labor through better labor management within each plant. It need not be treated further here. The second step is the centralization of the hiring of casual labor so that the requirements of casual work from various sources may be coordinated. Casual labor is, however, also the consequence of an excess of workers in a given market, resulting in competition for labor that reduces the opportunity of steady employment for all. The third step is to reduce the surplus to a fair proportion.

The efficacy of a centralized hiring process in the case of casual labor, showing as well the advantages of central clearance for employment as a whole, can be illustrated by a rather remarkable instance that came within the author's observation not long ago. At the end of October, 1922, the author was in Washington preparing a manuscript for one of the departments of the Government. He was notified

¹ E. C. P. Lascelles and S. S. Bullock, *Dock Labour and Decasualization* (London, 1924), p. 94.

one afternoon that this manuscript was desired next morning. It was necessary to secure a typist to help him that afternoon and evening. Inasmuch as the Underwood Typewriter Company serves as an agency for casual typing work in most cities, a worker was secured through this source. In the course of the afternoon a chance question developed the fact that, although the lady had been working on casual typing jobs for some time, she had been able to achieve a rather remarkable regularity of work. In the ten months that had elapsed since the first of the year she had lost only five days! This was due in part to her industriousness in seeking work at the Underwood Company, the public employment exchange and other agencies, and partly to the preference she was given by some of these sources when vacancies developed.

This shows that if the firms requiring casual assistance were to clear through a central employment exchange, such an agency could afford to hire several workers on a permanent basis and yet each would serve casual needs. It would be feasible to apply the measure to washwomen, to common labor, and to other casual occupations. To a limited extent this is done in some industries today. Some detective agencies keep a corps of men hired out by the day to different clients.

When labor is organized, any plan of decasualization would have to assure the workers that it would not apply to the detriment of those already in the trade. Much opposition was at first encountered on this score in the English dock schemes and may be expected in every industry where suspicion is not allayed. There is also the factor that some labor leaders are narrow and are not anxious to support plans which will reduce the total membership of their organizations. They are likely to regard the prejudices of their present members ahead of any proposed plan which merely promises greater efficiency in the future. Nevertheless, in time, unions can be induced to adopt a policy of decasualization if applied to those outside of their ranks and provided they are assured that the system of preference is not to operate in any way against them. Who would not prefer to be favored as against those not now in the industry or in

the union? In the following section instances are presented illustrating such practices by even those unions which have the best reputation for progressivism. Once decasualization is accomplished, the membership after a few years will be as accustomed to the conditions as they are to the principle of seniority on the railroads and elsewhere today.

2 Elimination of the Surplus Reserves of Labor

The reduction of the excess of workers in a trade or a locality, the third step in decasualization, involves difficult problems. Disregarding legal difficulties, an outside political agency, such as a public employment exchange, would have its hands full if it tried to control employers and employees who were unwilling to cooperate in a plan of reducing labor reserves. In the English dock schemes reliance was placed upon action by joint committees representing the employers and the union. That is how registration of workers was carried through in the Liverpool dock scheme, in London and elsewhere.

Employers in this country are not likely to cooperate with unions in plans that restrict the labor market, because they regard it against their economic interest. They fear it may involve stronger union control. Hence, for some time to come, unionism is the only agency which is likely to exert pressure in this direction. For this reason the present restrictions which unions, acting independently, have built up in the hope of increasing the regularity of employment of their members, deserve examination.

(a) Union Rules Limiting the Labor Supply

Union rules concerning the labor supply include the limitation of apprenticeship and of union membership. One of the oldest grievances of labor against employers is the flooding of the labor market with an excessive number of apprentices. Petitions to Parliament of centuries ago attest to the fact that laborers in skilled trades have always felt deeply concerned when the number of new entrants into their calling

was unrestricted.¹ The desire to safeguard the available work fund against the inroads of too many participants is the chief reason for the existence of apprenticeship restrictions today, and union officials emphasized this point again and again to the author. In the brewing trade a firm is forbidden to take in any apprentices when union men are out of work or when such apprentices would cause the lay-off of union workers. Apprenticeship is regulated by a proportion which is not adapted to the height of the season, but to the number necessary to run the local breweries in normal seasons. During the rush seasons there is a temporary relaxation of the regulations so that the required production may be secured.²

Where arbitration exists, the impartial authority has usually supported the contention of the union that there should be control over the number of apprentices entering a trade. In a case concerning the limitation of apprentice cutters in Chicago, the Arbitration Board stated that there were three principles in the agreement which had to be kept in mind in any complete ruling upon this matter of the number of apprentices. The first was that some control must be exercised over the number of apprentices, either by mutual agreement or by the impartial machinery, as contrasted with a policy of hiring apprentices without limit. The second was that provision must be made for the needs of an expanding business. Ordinary seasonal needs should best be met by overtime or by transfers from one group to another, but permanent expansion of a business required a permanent increase in the number of cutters. The third principle was that of the preferential shop.³

Restriction of union membership is practiced in several ways. Initiation fees that are too high are objectionable on several grounds, yet where no joint arrangement exists to control the labor supply in a market, that is the union's way

¹ For instance, the petition of the calico printers in 1804, in A. E. Bland, P. A. Brown and R. H. Tawney, *English Economic History: Select Documents* (London, 1915), p. 573.

² John R. Commons, *Industrial Government* (New York, 1921), pp. 256-257.

³ Board of Arbitration, Case 2d, "Emergency and Provisional Ruling on Number of Apprentices," February 5, 1920.

of keeping down the number of workers sharing the available jobs. Thus, on the waterfronts of New York the union levies an initiation fee of \$10.50 on all those who wish to work. This prevents those from other trades drifting in and taking away the jobs of the men dependent on the waterfront for their living. The business delegate is at every big "shape," eying the men who pass in, to see if they have their union buttons. If he discovers one at work without a button, he talks with him, and if he knows of a union man seeking a job who can replace this new man, he will secure the job for him unless the man joins the union. The mere floater will not pay the initiation fee and dues and is weeded out.

In some industries the union does not regard high initiation fees as desirable, and instead the union has actually closed its membership rolls. The Amalgamated Clothing Workers of Chicago have for some time endeavored to reduce the overcrowded condition of the local market. Some of the sections of the trade have a great deal more workers than the locality needs. One of the union officers stated in the spring of 1924 that in seam pressing, which is one of the least skilled operations, no new members had been admitted for about a year and a half or more, and in other branches a similar effort to hold the membership down had been made. The union had even gone the length of encouraging overtime in some occupations where the pressure of orders made it necessary to increase output, rather than admit temporary labor to the market that would soon be unnecessary for local production. Such overtime is paid for at the rate of time and half, so that it is not likely to be used too much by employers.

Unions working under closed shop and preferential agreements often allow the employment of non-members at peak-load seasons, but protect their established membership by refusing to enroll as permanent members the workers hired at those times. The brewery workers issue permit cards to non-union workers valid only for a month at a time. Others, such as some unions in the building trade, and the flint-glass workers, issue permits which are revocable at any time.¹ This attitude on the part of the "ins" as against the "outs"

¹ D. P. Smelser, *op. cit.*, pp. 40-41.

may be found even in the radical-minded unions. Temporary employees do the extra work required at the peak of production, but cannot join the union. Therefore, when work slackens they do not share in the advantage of equal distribution of employment to which they would be entitled if they were union members.

Unions do not generally assume the right to reduce the excess of laborers by restricting membership. On inquiry among labor leaders and on consideration of various factors, the following may be said to explain the reasons for their reluctance to pursue this policy:

(a) In most instances the unions do not have sufficient power to do so and probably could not weather a depression with such restrictions.

(b) Public attention would be directed from the employers' responsibility for irregularity of operation to the union's "selfish" policy of depriving a person of the right to work in the trade. The accusation of monopolization would thus give a false impression of the labor movement.

(c) The union would build up animosity among the workmen who wished to enter the trade and thus make unionization of the industry more difficult.

(d) Such a policy could not be enforced without the employers' cooperation. As long as there are employers who hire non-union men, the refusal to allow these men to join the union would only weaken the organization and build up a hostile outside force whom other employers could eventually substitute. Therefore, unions feel, it is the employers' responsibility as well as that of the union, and only joint restriction can be effective.

(e) Finally, it is impossible in most cases to gauge the figure at which the union membership shall be kept. It depends a great deal on the state of business in general, on seasonal conditions, on a sudden popularity of the product, and on other factors. It may be beyond the powers of the trade-union organization to determine wisely the probable course of events, because labor organizations are too far removed from the commercial aspects of the problem. Even the strongest unions are forced to recognize the existence of peak loads in production and unexpected changes in demand.

V WHAT ABOUT THOSE "SQUEEZED OUT?"

The question now arises: If these plans are put into effect, and a larger proportion of the workers are given full-time work, will this not increase the residue of totally unemployed? And what will be done about those "squeezed out"? It is true that the more efficient individual plants are, and the better the industries in a locality are organized, the smaller the labor supply required for the same amount of work. Actual computations show that by the establishment of rational methods the labor supply required could be 20, 30, and even 40 per cent less.

1 A Process of Gradual Adjustment

If any such plans were installed suddenly, they would bring great harm. The author need hardly emphasize that they should be done in the most painless manner possible. Having borne with the problem so long, we can bear with it further and save needless suffering. The workers in any one industry need not be affected at all, but only outsiders who might wish to enter it. Normal turnover should be relied upon as far as possible.

The real point is whether, as a result of the curtailed needs for labor in a large number of industries, the total requirements of the country might not be reduced so much as to create a surplus population for industrial purposes. From an economic standpoint this seems unlikely. If the same amount of production is done by a smaller number of people, we are not the losers by it financially or economically even if we support those without jobs by some form of insurance. But this would not be necessary, because the country could use the excess of labor in the many large projects planned but not undertaken. Now that we have shut the door against the large number of immigrants who used to come here, we are in need of this surplus labor and are better able to take care of it. Over long periods of time the labor supply will adjust itself to economic developments. It is the short-time changes and the sudden diminution of

requirements which have worked most havoc in the field of employment.

There is also the likelihood that the process of regularization will more significantly expose the type of labor known as the "unemployable." Just what these are it is hard to define exactly. In a general way the unemployables include the hopelessly lazy and indifferent, the mentally defective, the physically impaired, the dishonest and irresponsible. The line of separation from the merely casual worker is a tenuous one. Some students have assumed that these "unemployables" were not in any way the responsibility of industry, and were to be dealt with solely by social agencies.

2 *Industry and the "Unemployables"*

Modern investigations have come to a different conclusion. In the first place, most social workers have come to believe that industry itself, by its irregular methods of operation, is a force creating unemployables. Many of those in the ranks of the irredeemable have started out with capabilities which, under the proper circumstances would, at the least, have made them fit for ordinary industrial life. An American study shows that the most potent industrial cause of vagrancy is the seasonal and irregular character of employment in many occupations,¹ resulting in despondency and a loss of ambition, energy, and control. Many suffer from undernourishment. If, therefore, industry itself is responsible for part of the class of unemployables, industry should cooperate in the methods of taking care of them.

Such cooperation can best be exerted in giving employment, whenever this is possible. We now know that there is a place for mental defectives in industry, for aged people, for the physically incapacitated, because industry has experimented in employing them and has found them useful.

The Ford Motor Company has for a long while kept a certain number of places open for physically incapacitated persons. Certain tables in the factory are reserved for

¹ Cf. Alice W. Solenberger, *One Thousand Homeless Men* (New York, 1911), pp. 140-141.

blind men capable of hand operations, and they are said to be very efficient. The company has regularly taken a certain number of men released from prison, and men who had other disabilities commonly disqualifying them from employment. Deaf and dumb men have been particularly successful in this plant.

The problem remaining after industry has done its best is, undoubtedly, a social problem. The social responsibility will be clarified when the main group of unemployables in need of help are those congenitally unfit for industrial life. Under these circumstances the obligations involved pass beyond the bounds of employment technique.

VI AN EFFICIENT EMPLOYMENT EXCHANGE SYSTEM

Whatever limitations of a public employment exchange system may be pointed out, the need of such an agency has become obvious. It is now urged as essential to the efficient operation of industry rather than as a means for relieving the misery of the unemployed. It is as necessary in the labor field as traffic control is in city life. It is seen as an aid to employers as well as to employees. Placement should be based on fitness, not on need of a job. Among the requisites urged have been national coordination, neutrality in labor disputes, unified administration, technical and well-paid personnel, and ample facilities. Among the services suggested have been vocational guidance on a more elaborate scale than now done by such agencies, special aid to aged persons and other special classes of workers, and many other functions. From the mass of material that discussion of an efficient system has brought into being, the author has selected only a few elements for consideration here.¹ These will serve to bring out certain points essential for a proper viewpoint concerning the possibilities of public assistance.

¹ For an authoritative treatise see especially the report by Shelby M. Harrison and others, on *Public Employment Offices*, published after five years of investigation by the Russell Sage Foundation, in 1924. This exhaustive study of 685 pages is the best and most recent available. Another standard book on the subject is Don D. Leschoier, *The Labor Market* (New York, 1919), 338 pp.

1 Suggested Schemes and Administration

One of the questions which occupied a good deal of attention until recently was whether the national system of public employment exchanges should be an exclusive monopoly of the federal government. This was the case during the war, when the U. S. Employment Service temporarily took over all the state and municipal agencies. The most important alternative proposal is that it should be merely a subsidized system, in which the federal government would play the part of a coordinating force, directing the work of all these local agencies which could be induced to cooperate with it. The pros and cons of the question need hardly be argued now because, from a political point of view, the latter method is expedient. There is so great a hostility in many quarters to the assumption of power of any sort by the federal government and there would be so great an objection on the ground of the needed appropriations and the creation of a "bureaucracy," that a federal monopoly would be unstable. A favorable Congress would grant it heavy appropriations, and an unfavorable one would cripple it just when it was getting under way. By building up a cooperative system, as is the case now, local sentiment can be retained for each state and municipal bureau. The federal government uses its small appropriation for employment work to subsidize a good many of the local bureaus, and reports cooperative arrangements with employment offices located in thirty-nine states and the District of Columbia. The Canadian system is likewise based on the cooperation of the provinces with the aid of a federal subsidy. Only the farm labor employment exchanges are run directly by the United States Employment Service.

As the author sees it, the question of whether there should be an exclusive public agency or not has a more important aspect considerably overlooked. The emphasis laid on the abuses and competitive wastes of having many private commercial agencies has obscured the fact that private agencies of a noncommercial kind are extremely important in a comprehensive national system of employment exchanges. The author believes that such exchanges should be encour-

aged, and for this reason a few words concerning them need be said.

Unions, for example, fulfill an employment function which a public employment exchange could never equal. By this the author does not mean that many conduct bureaus for this purpose, nor that many of such bureaus where existing are efficient. The Chicago branch of the Amalgamated Clothing Workers, which called the director of the Canadian employment service to the position of manager of its employment exchange in order to make it efficient, is the exception. But even when no bureau exists, the business agent performs functions which are a great aid to his members, and even to employers, as well. The average business agent is well informed as to his trade. He knows the peculiarities of the employers, of the workers, of the jobs. He is constantly hearing reports concerning conditions in various firms. His work brings him into contact with the conditions of the trade in his and other localities. He does not wait for formal notification of vacancies, but when a man needs a job he tries to get him one, and when an employer calls for labor he tries to find the men.

Such specialized service as the seamen's union can give, for instance, no other agency can offer. A report of some years ago states that on one occasion about four hundred sailors were needed in Duluth for a sudden emergency. A large fleet of idle vessels had been ordered into commission quickly. Within thirty-six hours after the Chicago office of the union had been notified, a sufficient number of men were on their way to Duluth. The transportation of about three hundred of these was advanced by the union.¹ In England the Seamen's Labor Exchange has been a great success for many decades.²

The same specialization is true of employers' exchanges. Both union and employers' agencies suffer from the defect that they are likely to be exclusive. If cooperation in the problem by employers and employees could be secured, this would be best. Ideally, each industry would organize nationally and locally to handle its trade problems, just as

¹ *Mayor's Commission, on Unemployment* (Chicago, 1914), p. 74.

² *Royal Poor Law Commission, op. cit.*, vol. 37, pp. 1182-1183.

the National Construction Council is attempting to handle the labor problem on the side of apprentice training. Where a responsible union exists and is recognized, as in the building trades, in mining and elsewhere, the problem of employment exchanges should be handled jointly. But if no union exists, as in candy-making or the retail trade, and the employers alone have to handle it, they could do a good deal to coordinate labor requirements. The more that industries assume responsibility for regularizing employment in their fields—no matter who is in control—the less the public employment exchanges will be called upon to do.

Departmentalization of public employment exchanges with specialized placement men for each trade sounds well enough, but in actual practice it will not result in very efficient placement. The briefest acquaintance with the difficulties of selection and placement even within a single firm should settle that point. In the Chicago clothing exchange the director announced that to secure efficiency it was not enough to have men in charge who were acquainted with the trade, but that the work was to be subdivided so that each interviewer would be acquainted with a particular branch of the trade, coats, vests, or pants. A public employment exchange could not match such work.

At present the public employment exchanges are in disrepute among good workmen and have been prejudiced in the eyes of many employers. The public employment services will not pay the price of good leadership. The title "Director General of the United States Employment Service" rates only \$5,000 per annum—a sum which many firms give to young executives in employment work. The service is bound to be mixed up with politics in this country, and will suffer, in general, from the backwardness of American governmental administration.

The reason for pointing out these disadvantages is to drive home the point that the less public employment exchanges will be called upon to do, the more efficient they will be. In the author's opinion, the aim should not be to make the public employment system exclusive, but rather the final coordinating agency for clearance between trades having their own systems. They should be primary agencies

only for unorganized trades, for casual work, for miscellaneous jobs, and for such special reserves as are required in farming. This is, indeed, what is approximated by the Berlin exchange system. The same principle applies to exchanges run by municipalities or states. They should not attempt to be the perfect clearing house for all labor, for the hope is vain. They should be the agency which coordinates the local branches of trade agencies and performs the services indicated above for workers not included in such trades.

Public employment agencies should become the most efficient information centers with regard to employment. Neither union agencies nor employers' organizations can be commended in this respect. Too many unions are anxious to keep workers out of their localities or trades, for fear that if they come for temporary work they will stay and overstock the market. Some employers' organizations have advertised too widely and brought too much labor to a community. The public agency, being neutral and impartial, can, through accurate investigation, become a reliable information center.

2. *The Employers' Part*

The whole matter of efficiency of the public employment exchanges hinges on its ability to secure the cooperation of the employers. This is the *sine qua non*. If the employer notifies it of vacancies, the exchange does not have to ship workers elsewhere. If he notifies it of probable lay-offs, the exchange may be able to find jobs for them rather than seek workers from other localities. The cooperation of the employers lends the public employment office dignity. If really worth-while permanent connections can be made there, instead of merely temporary and casual ones, the better class of workmen will be more willing to patronize it. In the long run this means better service to employers. In the past employers have been willing to call on the public employment exchanges in boom periods, when labor shortage made it impossible for the exchanges to show their best side. In times of depression the employees called

upon them more than ever, and, in turn, were disappointed because of the shortage of jobs. Even during the war many employers did not cooperate with the public employment exchanges, and a special order had to be issued by President Wilson to industries engaged on war contracts requiring them to hire their common labor through the U. S. Employment Service.

Why is it that in the past "a majority of the employers of the country have been either hostile, indifferent, or contemptuous?"¹ Employers charge inefficiency and politics; the exchanges charge apathy and hostility. These will be briefly considered.

Public employment exchanges have not had time to be efficient. The first state exchange of a permanent sort dates back to 1890, in Ohio, and the first effort of the federal government to 1907, when a law was passed by Congress to empower the Bureau of Immigration and Naturalization to promote a better distribution of aliens among the states. The actual assumption of the job of coordinating labor requirements between men and industry did not begin until January, 1918, when the Department of Labor created the U. S. Employment Service for war purposes. The Service was rushed into full development for military reasons. It was inefficient according to peacetime standards, but it was of aid under the peculiar conditions. In October, 1918, only a few months after its creation, it had established 832 branches. Naturally, abuses of various sorts crept into the system. After the boom period, when conditions became more "normal," the employers of the country had a great opportunity to use their influence in securing an efficient and impartial system. They could have insisted then on a form which would reduce the objection of "politics." Instead, they opposed it altogether. Appropriations lapsed in 1919, and then were so meager that the Service was reduced to a skeleton organization. It is slowly recovering and is building up again on sound principles. We cannot expect much of it until at least the elemental difficulties of appropriations and co-operation are extended to it.

¹ Don D. Lescohier, *op. cit.*, p. 165.

Apathy on the part of the employers is a pervasive reason for their failure to cooperate. Such employers do not want to bother with the system, whether efficient or not. Hostility on the part of other employers is more reasoning. They want an overstocked market. They prefer to have a large labor reserve at their gates. They prefer the co-operation of commercial agencies whose aid is obtained for anything at a price. It is the apathetic and the hostile employers who are to a large extent responsible for friction in the labor market. In time this is likely to bring a widespread demand for unemployment insurance—a type of legislation which, whatever its merits, employers do not like.

3 *England's Employment Exchange System*

The most comprehensive national system of employment exchanges is that existing in England. The local offices performing the detailed work are of two distinct types. The first group of offices, known as employment exchanges, are staffed by permanent full-time officers, aided by temporary or auxiliary clerks whenever necessary. The second type, branch employment offices, cater to those areas which are not directly covered by the main employment exchanges, and are usually in charge of part-time officers. In 1923 there were 780 employment exchanges and 385 branch offices. There were 4,180 permanent employees in July, 1923, and 4,952 on the temporary staff. In connection with each employment exchange there is a local employment committee, consisting mainly of representatives, in equal numbers, of employers and employees, nominated by their organizations. They serve as bi-partisan advisors of the employment-exchange work and are of great importance.

Each exchange is linked up with every other exchange in the country for the purpose of placing workers in other localities or securing workers from them. When a vacancy cannot be filled by an exchange, the surrounding exchanges are first notified, and then, if necessary, a wider area. Finally, the vacancy may be circulated over the whole country by means of the *National Clearing House Gazette*,

an official list of such vacancies distributed nationally, which is issued once a week and kept up to date by supplementary sheets issued daily.

The comparatively great efficiency of the English exchanges is due, in large measure, to the fact that the compulsory unemployment-insurance law requires them to disburse benefits. The financial business involved has made their transactions as important as that of small savings banks, and enforced system and responsibility. The exchanges handle up to \$250,000,000 in payments in a year. It is interesting to note that the same effect upon employment exchanges resulted in Chicago, where the insurance scheme in the men's clothing industry forced the union office to become a great deal more systematic.

The final thing to be said concerning public employment exchanges is that, after all, they are superficial agencies. They facilitate, they mitigate, but they do not do much to eliminate. That they leave things pretty much as they are is seen in the fact that during March, 1924, the number of applications outstanding on the "live registers" in the English exchanges at the end of each week was not less than 1,057,031, while the highest number of workers applied for by employers in any week of that month was 25,747, or less than $2\frac{1}{2}$ per cent.¹

The gist of the report sent in October, 1924, to President Coolidge and to the Governors of the states by the Russell Sage Foundation, after its five-year study, is contained in the following press summary, embodying the chief recommendations. It appeared in the *New York Times* of October 20, 1924:

"That the federal government encourage and assist the states to maintain adequate systems of public employment offices and to coordinate these into an effective nation-wide service.

"That the states administer and support their own employment offices, subject to the terms of agreement with the federal government; and that the local governments participate in the management of the offices in their community through representation on their local employment committee.

"That in order to establish the non-partisan character of the

¹ *Ministry of Labour Gazette* (Great Britain), April, 1924, p. 133.

service, the functions to be performed by the federal government be administered by a board appointed by and directly responsible to the President.

"That this board consist of the Secretary of Labor, the Secretary of Commerce, and the Secretary of Agriculture.

"That a national council and local employment committees representing employers, workers, and possibly other allied interests be established as an additional aid in obtaining neutrality of administration as well as a reputation for such.

"That the procedure of the service in respect to demands for workers by employers in whose establishment a strike or lockout is in progress or is pending shall be such as to guarantee the neutrality of the service."

The report describes in great detail the large variety of administrative systems suggested for a national employment service, and says:

"The balance of weight belongs on the side of a combined federal-state-local administration. The idea of a nation-wide system of exclusively municipal employment offices seems little less than chimerical. Our observations indicate that the choice of staff in employment offices administered by the municipality has been more influenced by political considerations than that in offices operated either by the state or by the federal government. Too often they have been relegated to the charities department of the city government, and their connection with municipal lodging houses and woodyards has been too intimate.

"State control of public employment offices, either singly or in cooperation with local communities, has wrought no miracles. Indeed, it has been subject to many limitations, some of which have characterized municipal control. Lack of adequate appropriation has been the most far-reaching handicap. The inadequacy of state appropriations has necessarily been directly reflected in the quality of the personnel of its employment bureaus. From the very beginning compensation has been far too small to attract the type of ability required. Though increases have been made, there is still urgent need for further upward revision of the entire salary schedule.

"Whatever the shortcomings of state administration, the fact remains that twenty-six states have established and are now operating public employment offices. While the development of efficient and scientific methods may have been unduly delayed there has been much progress.

"Nine out of eleven representative economists unequivocally advocated combined federal-state-local control. The majority

of employers interviewed in our study were opposed to an exclusively federal control. Organized labor appears also to favor a federal-state service.

"Whichever proves finally the more desirable, an exclusively federal or a federal-state-local employment service, it is commonly conceded that the former is not at present feasible; and with this we are in agreement. To think that Congress, either now or in the immediate future, would appropriate \$10,000,000 for an employment service, an amount estimated as necessary to provide an adequate basis, is an idle dream. Expediency demands combined federal-state-local administration. We must begin with what we have."

CHAPTER XV

UNEMPLOYMENT COMPENSATION AND INSURANCE

I NEED FOR FINANCIAL INCENTIVES FOR REGULARIZATION

A PROGRAM of regularizing employment requires the co-operation of three parties. These are, first and above all, the employers; second, the workers; third, the state. To secure the cooperation of the last is a problem of governmental legislation and administration. But how get the active interest of the employers and the workers? Unless this question can be solved, this study remains a paper plan.

This supplies one reason for an interest in unemployment compensation. A study which mourns the failure of many ports to adopt the obvious methods available of decasualizing dock labor, brings out the point significantly.

Past experiments with registration and with surplus stands show that merely providing the machinery, however elaborate, will not insure success. In port after port voluntary registration schemes have lapsed into a state of suspended animation. . . . How, then, can we hope for better results from the same machinery in the future?

The answer seems to be that experiments in the past have failed because there was no inducement to either employers or dockers to make them succeed. . . . The experiments have shown that . . . if some real financial incentive could be attached to registration, punishing impartially the pockets both of employers and dockers, if they prevented the deflation of the register or refused to join in schemes for labor distribution, then the machine would acquire that force and precision which it now lacks.¹

By economists and observers of industrial method this point of view has been frequently expressed. One of the keenest criticisms is by Dr. Carlton Parker, who stated:

¹ Lascelles and Bullock, *op. cit.*, pp. 121-122.

The heart of the problem, the cause, one might well say, of unemployment is that the employment of men regularly or irregularly is at no time an important consideration of those minds which control industry. Social organization has ordered it that these minds shall be interested only in achieving a reasonable profit in the manufacture and sale of goods. Society has never demanded that industries be run even in part to give men employment. Rewards are not held out for such a policy, and therefore it is unreasonable to expect such a performance.¹

Various American reports and discussions come to the same conclusion. A recent investigation of *Seasonal Operation in the Construction Industries*, by leaders in the industry and eminent authorities, states: "Lack of responsibility of any one group for the situation, and the feeling that it costs nothing to lay off men, account in large measure for the seasonal idleness of the industry."²

This, then, is the most important advantage of an insurance plan—that, properly drawn, it tends to reduce unemployment to the minimum. When a lay-off threatens to cost a firm money, this financial penalty enters into the money economy of business and keeps attention focused on ways and means of regularization.

II EFFECTIVENESS OF DIRECT MONEY PAYMENT FOR UNEMPLOYMENT

The psychological effect of this penalty and its converse, the incentive of saving money, is greater than the amount saved would warrant. This is the point that some students of the unemployment problem miss when they cast doubts upon the efficacy of a financial reward for regularizing employment. They say that the expense of unemployment compensation is likely to be so small as compared with the larger wastes of idle plant and equipment, that if employers do not make efforts to avoid the latter, they will not do so for the sake of avoiding the smaller expense of unemployment payments.

The psychological advantage of unemployment compensa-

¹ Quoted in Mrs. Cornelia Stratton Parker's *An American Idyll* (Boston, 1919), pp. 86-87.

² Page 22. Report cited in full on p. 290, *supra*.

tion is that it involves a definite, tangible money payment, while the losses of irregular operation are hard to estimate and are intangible. The average business man is extremely reluctant to incur such losses merely to avoid the uncertain and hidden expenses of irregular operation. He may even admit that it would be more profitable in the long run, yet he finds it hard to operate purposely on a losing basis to secure a greater future reward. But when unemployment would deplete a fund he has set up, the choice cannot be deferred. It is between two tangible expenditures, an operating loss or a loss in the form of free payments to unemployed workers. He is then likely to experiment with methods of keeping the organization together, perhaps, using as an addition to operating expenses the equivalent of the money that would otherwise have to be spent in unemployment benefits.

This result is seen in any plan of the incentive type, even though voluntarily established. When an unemployment fund exists it is natural that everyone should want to conserve it. An interest in the possibilities of regularization of employment is inevitably aroused. Formal agencies are sure to be set up to study methods of eliminating specific causes of irregularity. One firm made the requirement that the payroll division send a weekly report to the employment office, displaying the records of overtime, night work, and unemployment compensation in parallel columns. In this way a department which laid off workers one week and had night work or overtime the next became the subject of official inquiry, and better planning was enforced. One of the suggestions that came from the employees' General Works Committee in the Dennison Company was the development of commodities involving little material and much labor, such as paper novelties that require a good deal of handwork.

In the famous Liverpool dock scheme, which has done much to decasualize the work of thousands of dock workers, the main thing which first secured the cooperation of the employers seems to have been the slight reduction in the contributions payable for those workers to the compulsory

health-insurance scheme.¹ This small financial incentive was used as a bait in plans existing in certain parts of South Wales, with regard to the decasualization of the work of men engaged in ship repairing.²

The results of incentive plans of compensation speak for themselves. There are several in this country, one of the most important of which is the Cleveland plan. The main purpose of this, as defined by the manager of the employers' organization, is the elimination of seasonal unemployment "through the device of offering an incentive to the only one who has it in his power even to attempt it—the employer. The employer is not always in a position to eliminate unemployment, but he is the only one who can try to do so."³ The effects upon the industry have been marked. The records show that the Cleveland manufacturers did not even wait until the insurance plan was actually forced upon them, but, in anticipation of the granting of this measure by the referees, employed a well-known sales consultant to advise them as to means of securing a more regular distribution.

A brief record of the results of the plan, as reported by the manager of the employers' organization, indicates that from June 1, 1921, to December of that year—the first six months of the actual operation of the plan—when the liability of the employers was $7\frac{1}{2}$ per cent of the payroll, the amount spent was only $2\frac{1}{2}$ per cent, or about a third of the maximum liability. This record was considerably bettered in 1922, and in 1923 only 13 per cent of the maximum liability was incurred. The progress of the manufacturers toward regularization may be seen in the following table.

This saving to the employers was not a pure gain, for it cost them a good deal to secure these results. As unemployment compensation under this plan involves payment that could be saved if idleness is reduced, firms manufactured ahead for the purpose of keeping the organizations

¹ Bruno Lasker, *The British System of Labor Exchanges*, U. S. Department of Labor, Bulletin 206 (Washington, 1916), p. 32.

² *Ibid.*, p. 35.

³ Fred C. Butler, "Guaranteed Employment in the Cleveland Garment Industry," in *The American Labor Legislation Review*, June, 1924, pp. 137-142.

	Per cent of the fund paid in benefits	Per cent remaining for employers	Number of employers who saved full 7½ per cent	Number of employers who spent full 7½ per cent
June 1, to Dec. 1, 1921	34	66	5	4
Whole year 1922.....	21	79	11	3
Whole year 1923.....	13	87	7	2

together, they ventured to buy cloth far in advance of need, they took on work at cost or at less than cost, etc. Some manufacturers have made special drives for slack-season work; others sought orders on what they normally regarded as side-lines. Because regularization of employment became a factor in profit-making, it became one of the prime concerns of managements.

If the savings involved were not pure gains, they were not entirely losses. The results of taking care of workers through unemployment compensation are not all measurable. Many important advantages of having such plans are reported by the firms which have established them. Some of these which should be noted are given in the following pages. In addition, some of the more general advantages that would follow a wider establishment of the principle are incidentally mentioned.

III SOME BUSINESS ADVANTAGES OF UNEMPLOYMENT COMPENSATION

Among the hidden costs of idleness in trades that are marked by irregularity is a higher daily or weekly wage. This gives the worker little protection against unemployment because, as brought out in Chapter II, he does not balance his budget, but is likely to spend more or less as he earns. Under the Chicago plan the amount to be paid by the employers to the insurance scheme was deducted from a wage increase then being decreed by the impartial chairman, so that savings were more or less enforced upon those in the industry and risks distributed. For several other reasons

the higher wage is not advantageous from the employees' standpoint. High wages may lure larger labor reserves than necessary, including those temporarily released from other trades, and thus make for greater irregularity of employment for the regular workers. This hidden form of compensation is also defective because it is paid to anyone who happens to secure employment in the trade, even if for a day in the whole year. Under systematized plans, however, the compensation is given only to those who really depend on that occupation for a living, and the amount and duration of benefit have some relation to length of service, as well as the amount of unemployment suffered.

Among the business advantages claimed for unemployment compensation is a lessened resistance on the part of the workers to plans for greater efficiency. The employee assured protection during idleness has less reason to resist a firm's attempts to secure increased output. Actual results justify the claim. In the Cleveland garment industry, where piece work had been anathema, the unemployment compensation plan made it possible to secure the acquiescence of the union in the installation of the equivalent of piece work—production standards. These standards are based on a scientific study of the job, using the stop-watch. The agreement between the union and the employers' organization goes the length of setting up a Joint Bureau of Standards, comprising several engineers, half of whose salaries and expenses are actually paid by the union.

If compensation plans will reduce resistance to scientific standards of work, their cost may be completely wiped out. The installation of time study in plants often has its main value in the critical analysis and overhauling of methods of management to which time study leads, not in the standards of output themselves. The chief executive of a large textile firm, who has installed time study in four different plants, claims that 75 per cent of the value of time study in these cases came through improvements in method resulting from the study of existing practices. It is not surprising, therefore, that one of the best informed executives in the Cleveland garment industry asserted recently to the author that the cost of the unemployment compensation plan to the

manufacturers had been more than met because of the introduction of production standards in place of the former system of payment by the week.

The few firms which have established unemployment compensation individually believe that this is a force that tends to reduce labor turnover. This has resulted not only because of the attraction of the plan, but because it has made for more careful selection of employees and closer calculation of labor requirements. The Procter & Gamble Company reports that its guaranty has made foremen more careful not to overman departments, when previously they had much less compunction about laying men off. Turnover is decreased, also, because the desire to conserve the unemployment fund has reduced the antipathy of the workers to temporary transfer between departments. This has been noted in all plans of individual firms, and in the Chicago clothing market a union official claims that this result will follow in due time. Power is reserved under all plans to offer the alternative of transfer to unemployment without compensation. The fact that insurance makes the working force more adaptable is important from many angles of our problem.

It is also claimed by the Dutchess Bleachery, the Dennison Company, and others, that such protection against the distress of unemployment brings about a closer harmony between employers and employees. This conclusion is based on observation and on actual investigation. In the Dennison Company the Unemployment Fund Committee sent out an investigator to visit every department and to draw out by personal interviews the opinions of individual employees and foremen concerning the unemployment plan. The results, as reported, were most satisfactory. A spirit of loyalty in a plant is an intangible asset, but its values, though hard to appraise, are admitted as worth striving for. The absence of such a spirit is likely to be a cause of hidden losses.

Another advantage of a systematic plan is to make the distribution of idleness compensation more secure. Many employers who have had every intention to provide for their employees did not stand by their convictions when a

crisis occurred. A formal plan minimizes the risk of such contingencies. It sets aside for a particular purpose a fund which cannot be used for other purposes when a depression makes the executives panic-stricken.

The distribution of benefits is also likely to be much more timely and helpful to business under such plans. The funds are likely to be spent most heavily in periods of depression, so that the payments go to the aid of workmen at a time when the purchasing power of the nation is most severely curtailed. These funds are thus reserves against hard times.

In all cases unemployment funds have made for better employment records. Accurate employment statistics become imperative because the amount of accumulated idle time is the deciding factor in the right to compensation in most plans. In Cleveland the employers' organization and the union cooperate in the system of keeping records, and the impartial Joint Bureau of Standards keeps records also in order to be able to test the fairness of the time studies in relation to earning. In Chicago the keeping of records became of paramount importance at the very outset of the plan. If there is such a crying need for employment and unemployment statistics as is everywhere asserted, insurance plans certainly will enforce their collection.

IV JUSTICE OF THE UNEMPLOYMENT COMPENSATION PRINCIPLE

No matter how earnest the efforts of employers and of the state to regularize employment may be, it is certain that unemployment and idle time will never be eliminated completely. It is, indeed, undesirable that the labor reserve upon which the starting of new industries and the fluctuations of demand depend should be wiped out, for if there is no means of obtaining labor except by robbing some other industry, enterprise will be greatly hampered. The successful functioning of industry can do with a much smaller reserve of labor than at present, but it cannot do without *some* labor reserve. And if the existence of a group of unemployed workers is essential to industry, it seems simple economic

justice that a large part of the responsibility for maintaining that reserve during the periods when its services are not required should be universally assumed by industry itself.

Employers and economists make practically no objection to the principle. It is often put somewhat as follows: If land, building, and equipment not in use are taken care of, even at the cost of current expenditure, in order that they may be available in an efficient condition when wanted, labor is worthy of a like degree of care. If idle capital draws a full quarterly dividend even though it may not have been used at all during that period, labor, as well, must have support when industry does not require its service. The question of government compulsion in the matter has raised objection, but not the justice and the desirability of having employers assume the obligation voluntarily.

The principle of compensation for idle time is indeed already practiced in indirect form throughout industry and in employment generally. The fees of consultants, lawyers, dentists, public stenographers, and others are based, in part, on the fact that they do not have full-time work. Whenever temporary labor is awarded a higher pay than regular labor, it is a recognition that idle time must be paid for. In the packing industry, Swift & Company and the other packers of the Big Five have a so-called forty-hour guaranty, granting a worker forty hours' pay as a weekly minimum, whether he has been given the opportunity to work that long or not. Railroads pay men in the freight service a minimum weekly rate, no matter what their mileage. It is also a recognition of a feeling of obligation when industries expend money for relief of employees laid off during times of depression, for such aid is given to many whom the firm may never be able to reemploy. The I. L. Case Threshing Machine Company, of Racine, Wis., assisted 343 families of former employees during 1921 by relief loans. Many such instances can be cited from the annals of the last depression.

What, then, is the advance made by the adoption of formal compensation or insurance plans? In brief, it is the extension of an accepted principle, and its organization into a system that safeguards it against insolvency, that

adapts it more satisfactorily to a given firm or industrial group, and that allows for its most effective administration. In part, unemployment compensation plans merely effect a better distribution of hidden losses of idleness, which now take the form of compensation payments tacitly being made by industry; in part, also, they take account of sacrifices borne by the workers. At the same time the insurance method secures important economic advantages and returns which the former practices did not. Furthermore, if properly drawn, an insurance method may stimulate an interest in the regularization of employment that should have an enormous influence in reducing the proportions of the whole problem.

The social worker would say that insurance plans improve upon the method of distribution of the present compensation for idleness in still another way. They keep many workers from requiring the aid of philanthropic and public agencies to which the employer contributes personally and his firm contributes as taxation. The fact that trade-unions which pay out-of-work benefits practically never have members among applicants at charity organizations promises like results when more firms adopt insurance. Thus compensation plans reduce the social burden.

The term insurance here will be used more or less loosely. A plan in which the employer compensates his employees, in part or in full, for the time lost is not necessarily insurance. It is stretching it a point to call it such when it is noncontributory, it is given at the discretion of the employer, and the total sum available may not be renewable when spent. A plan would be more distinctively insurance if it were contributory, if it created a clear right to benefits and represented a pooling of the risk, distributing among the many the losses sustained by the few. The term insurance will be used to include plans that are not strictly insurance on the assumption that these plans are the present beginnings of insurance.

V AMERICAN INSURANCE PLANS

Our discussion of insurance plans in general will now be made more concrete by a consideration of actual plans in

use in American industry. For this purpose the author has selected four types—the Dennison plan, the Procter & Gamble plan, the Cleveland plan, and the Chicago plan—for a comparison of main features. The last two are the types upon which plans in other union markets have been based, while the first two have been given much attention by individual employers where the union has not been a factor. Only incidental reference will be made to other plans, such as that of the Dutchess Bleachery. In the discussion the attempt will be made to point out the main principles of a good plan. Types of government insurance now existing in many countries need not be discussed in this study because their main purpose is relief, not regularization. As such, in the author's opinion, they are lacking a most fundamental feature. Those who are interested in the subject, however, will find a comprehensive summary in the report of the President's Unemployment Conference¹ and are referred to other recent studies.²

1 *Preparation for Insurance*

American insurance plans suggest the desirability of making considerable progress in regularizing employment before insurance plans are adopted. There will be less danger of

¹ *Business Cycles and Unemployment*, *op. cit.*, Chapter xviii, by Leo Wolman, is on "Unemployment Insurance."

² Among important studies of unemployment insurance in Great Britain during the past few years are: Great Britain, Ministry of Labour, *Report on National Unemployment Insurance to July, 1923* (London, 1923), 231 pp., and Felix Morley, *Unemployment Relief in Great Britain* (New York, 1924), 203 pp. The latter's indictments of present government-managed insurance are open to criticism in several important respects. A much more mature view is that in *The Third Winter of Unemployment* (London, 1922), 350 pp., a report resulting from an enquiry undertaken in the autumn of 1922 by the group of eminent British economists and publicists responsible for *Is Unemployment Inevitable?*, cited in several sections of this study. The much-discussed question of insurance by industry has a literature almost its own. Among the best treatises on this issue are Joseph L. Cohen, *Insurance by Industry Examined* (London, 1923), 120 pp., and a pamphlet on *Unemployment Insurance by Industry*, published by the National Joint Council representing The General Council of the Trades Union Congress, The Executive Committee of the Labour Party, and the Parliamentary Labor Party (London, 1923), 32 pp.

adversity in the financial experience of the funds. The Dennison Company applied modern administrative science to the problem for many years before a formal compensation plan was adopted. The Procter & Gamble employment guaranty followed two and a half years of experiment with improved methods of estimating sales and planning production. The Cleveland plan may be said to have started with insurance first, leaving to later developments the gradual improvement in methods. For this reason the scale of benefits is very much restricted as compared to the first two plans discussed. The Chicago plan accepts conditions in the industry as they are, and is almost entirely a relief plan.

2 History of the Plans

The Dennison plan emanated from the firm's directors, who, on several occasions beginning with 1916, voted sums of money for a special unemployment fund. By 1920, about \$150,000 had thus been set aside, and some payments had been made. The plan really came into effect in March, 1920, however, when a joint committee of representatives of the firm and of the Employees' Works Council, drew up the rules in final form. The firm has over 3,500 employees. The Procter & Gamble plan was instituted by the management on August 1, 1923, and applies to some 5,000 workers.

One of the chief issues between the garment manufacturers and the union in Cleveland has been the method of wage payment. The manufacturers have desired a piece-work system; the union a straight week-work system. In an agreement concluded in 1919 the issue was covered by two articles, one that the principle of week work should be combined with production standards drawn up under the direction of a Joint Board of Referees existing in the market; the other that a united effort should be made to increase continuity of employment. In a wage arbitration case in December, 1920, the union took the stand that it could not cooperate in a plan making for greater output by the workers without some assurance that if this shortened the season the employees laid off would be provided for, and

guaranty of a minimum amount of employment annually was demanded. The employers were so anxious to avoid a straight week-work system that they finally assented to the principles of unemployment compensation. The estimates of the workers included range around 3,500. The plan adopted was a compromise. The Board of Referees itself may be said to be responsible for the particular form which the compensation plan took. In announcing it, they stated:

The next desirable step to be taken is to break up one of the vicious features of seasonal industry by providing for as much continuity of employment as is practicable. . . . We believe that the time has come when the regular workers in the industry are entitled to a guaranteed minimum period of work, or compensation for the lack of it. Such guaranty is a proper and necessary burden on the industry.

An account of the Chicago plan presupposes some knowledge of the Amalgamated Clothing Workers and their rise from an obscure local union to one of the largest and most progressive organizations in the country. Its leadership has always been able, and it was not long after the achievement of nation-wide prestige and power that the union turned its attention to the evils of irregular employment. At its convention in May, 1920, during a period of prosperity, a resolution was adopted to urge unemployment insurance upon the employers of the industry and at subsequent wage arbitrations in various clothing centers this was one of the demands.

The idea was too novel to secure immediate acceptance by the employers. In the renewal of the agreement in Chicago between the members of the Industrial Federation of Clothing Manufacturers and the Amalgamated Clothing Workers, for a period of three years, the union kept the subject alive by a clause to the effect that if, within a year, a mutually satisfactory understanding on the subject of unemployment had not been reached, the union could terminate the agreement if it desired to do so. In the meanwhile, realizing that the union was quite determined in the matter, certain employers gave the subject a good deal of consideration. When the matter was brought to the fore

in the negotiations with regard to wage adjustment in the spring of 1923, an agreement was reached on the main principles of an unemployment fund. The employers' contribution of $1\frac{1}{2}$ per cent of the payroll for the succeeding year was taken into account in the wage award made at that time. The plan extends to about 350 shops, with about 35,000 workers.

3 Source of the Unemployment Funds

The Dennison plan appears to be a noncontributory type because the funds were made available from profits by a vote of the Board of Directors. However, the employees may be said to contribute indirectly, since the special form of copartnership and of profit sharing under which the firm is organized makes any appropriation from profits a sort of indirect contribution. The cost of the Procter & Gamble plan is borne entirely by the employer. No special fund has been set up, as the firm expects to be able to make all necessary unemployment payments from current operating expenses.

The Cleveland plan requires every employer to set aside 10 per cent of his direct labor payroll weekly as a fund with which to reimburse employees who do not get work for forty weeks in the year. Until the revision of the agreement, in January, 1924, the employer set aside only $7\frac{1}{2}$ per cent. The 10 per cent is the employer's maximum liability. If he provides forty weeks of employment to all his workers the 10 per cent fund reverts to him at the end of the year; if he gives them thirty-nine weeks, he pays them compensation for one week, saving the balance of the fund. Each firm conducts its own fund, having practically no relation to the funds provided by other manufacturers. In practice, most of the firms do not actually set aside the funds required, but assume the obligation, giving security for the financial solvency of these funds.

In Chicago the plan is contributory and both the employers and the employees pay in equal amounts. Every manufacturer has signed a separate agreement with the union concerning an unemployment fund, under which he must

deduct $1\frac{1}{2}$ per cent of the wages paid to his union workers, add another $1\frac{1}{2}$ per cent as his own contribution, and forward the combined 3 per cent to a joint board of trustees of his unemployment fund. Each employer may have a separate board of trustees if he wishes, but Hart, Schaffner & Marx, and Kuppenheimer's, are the only two which have chosen to do so. The members of a board represent in equal numbers the employer and the union, with a neutral chairman. The agreement provides that Prof. John R. Commons is to act as chairman of all boards of trustees.

4 *Eligibility for Benefits*

A rule common to the plans is their limitation to the wage-earning group. In the Chicago and Cleveland agreements workers who are not union members are not covered by the compensation plans; in the Dennison plan those paid by monthly salary check, and in the Procter & Gamble plan those earning over \$2,000, are specifically excluded. Disregarding minor restrictions as to eligibility, the important ones to consider are, first, length of service provisions as a prerequisite, and, second, waiting periods of minimum amounts of unemployment which must be experienced after an employee does come within the scope of a plan before there is a right to compensation.

The length of service prerequisite is significant because it determines to what extent temporary workers called in at the peak of the season will be assisted when laid off. In the Dennison Company there is no length-of-service prerequisite. Employees engaged specifically for temporary work are not included in the plan, but temporary workers here are few in number—much less than 1 per cent of the number employed—and when engaged are employed for only a few days. They are definitely told their work is temporary when hired. The normal thing, then, is that an employee taken on by the company is at once within the scope of the plan, and since compensation is paid for any unemployment of a half day at a time or more, there is practically no further waiting period. In this respect the Dennison plan is more liberal than any known to the

author. In the Dutchess Bleachery plan, mentioned in subsection 12, benefits are paid for all time lost from the regular forty-eight hours a week guaranteed, but an operative must have been in the employ of the company at least two consecutive months before he can participate in these benefits.

In the Procter & Gamble plan one becomes eligible after not less than six months' service, after which at least four weeks of unemployment must be suffered before compensation is payable. From an ultimate insurance standpoint a long service period is a defect. It seems no more than just that if an employee leaves a job in good faith to accept what he believes a permanent opening in another firm, and then through no personal fault something happens which results in his lay-off, some protection against distress should be given him. In a perfect plan this would be done. The provision would give a smaller transitional benefit than the regular employees', but would allow readjustment in the labor market.

The two union plans have sidestepped this issue for the present at least, for temporary labor may be used without liability for compensation when laid off. A decision by the impartial referee on November 18, 1923, specifically excluded temporary labor in the Cleveland plan by permitting the employer to hire extra workers for a period not exceeding four weeks, once in each of two seasons, and to release them at will without compensation. Such temporary employees may not be more than 20 per cent of the workers in any one department. This is a step backward from the former practice, which was that new employees usually had to pass through a probationary period of only two weeks before acquiring the status of regular employees. The referees were probably led to the decision by the desire to make the plan workable under present conditions in the garment trade. The waiting period of a regular employee is twelve weeks, since the agreement attempts to guarantee only forty weeks of employment.

In the Chicago plan a worker must have been a member of the union for a year before he comes within the scope of the insurance plan. Then there is a waiting period of forty-four hours of unemployment.

5 *Scale of Benefits*

In the Dennison plan, employees entitled to benefits are given 80 per cent of their customary weekly earnings if they have dependents and 60 per cent if they do not have dependents. The amount is figured on the basis of the regular payroll week. This compensation is easy to calculate in the case of time workers, for the regular hourly rate is used as the basis, but for the workers paid on a production basis, involving piece work, the average hourly earnings for the six weeks previous to the time when they become entitled to compensation is used. The firm has not attempted to provide payment of the full daily wage to those laid off because it is feared that if employees were paid their full wages for idle time, the leisure might make idleness more attractive in some cases than work and also that the incentive to save as a reserve against unemployment might be weakened. There is no article of the Unemployment Fund specifying the duration of these benefits, but it is not the intention to have employees on the payroll of the Unemployment Fund Committee for any length of time. The amount available in the fund is also a limit on the total to be spent. The committee is expected to review carefully the circumstances of those in need of benefit who have received payments for six consecutive days of total unemployment, with the object of deciding whether the conditions of the fund make it desirable to continue the compensation in full or in part. Only about seventy-five cases of compensation paid to workers laid off a full week at a time appear in the weekly reports for the whole year 1921.

The Procter & Gamble plan guarantees "full pay for full-time work for not less than forty-eight weeks in each calendar year, less only time lost by reason of the customary holiday closings, or through fire, flood, strike, or other extreme emergency." The exemption of the holiday closings reduces the guaranty to nearer forty-six weeks than forty-eight weeks. Nothing is said about a reduction in compensation when the worker finds a temporary job elsewhere.

Since the decision of November 18, 1923, when the impartial chairman reduced the rate from $66\frac{2}{3}$ per cent, employees included in the Cleveland plan are entitled to 50 per cent regular wages in unemployment compensation for every week less than the forty weeks a year which the employer is supposed to provide under the agreement. The payment of compensation continues as long as the fund built up during the year by the employer through the accumulation of 10 per cent of the direct labor payroll lasts. If the employer has a bad year and the fund is inadequate to carry employees on compensation for the full time to which they are entitled, there is no recourse, as this 10 per cent is the maximum liability. From a relief standpoint this sets up inequalities between the workers, especially as between inside shops and outside shops. The latter are more unsteady because inside shop employers naturally try to keep all the work they can for their employees in order to avoid payment. The low rate of benefit is somewhat offset by the fact that an employee who is on compensation may take an outside job and earn whatever additional he can. The manager of the manufacturers' association claims that the former rate of $66\frac{2}{3}$ per cent of the wage was too high, for when an employee secured temporary employment in some other shop, he might be getting as much as five-thirds of his usual wage. It was thus an incentive for some employees to seek a lay-off.

However, any faults in the provisions of relief under the Cleveland plan are attributable to the basic economic conditions of the garment industry. If the plan were too ambitious in its early stages, it would make the competitive problem of Cleveland even harder than it already is, and would court failure. This would set the movement back. It is hoped that when the other garment centers of the country have been forced into similar agreements, the relief features will be reconsidered. The present significance of the plan is not relief, but reform.

In the Chicago plan the rate of benefit for total unemployment is only 40 per cent of the full-time wages, with a maximum of \$20 a week, payable for not more than three weeks in either of the two seasons in the trade (which are

defined as May to October and November to April), or more than five weeks in any insurance year. In case of complete unemployment the contributing employee must promptly register with the employment exchange, and unemployment is deemed to begin on the date of registration. As previously stated, there must be a waiting period of forty-four hours of uncompensated unemployment in each season after registration at the exchange before eligibility for benefit begins. Workers on short time have a similar waiting period, but if, after that period, they lose only four hours or less in any week, they get no benefit. Loss of time in excess of four hours in any week is compensated for on the usual 40-per-cent basis. In the case of both full-time and short-time idleness, every hour of overtime offsets an hour of unemployment. If an employee has voluntarily interrupted the regularity of the payment of his contributions, he may not receive more than one full weekly benefit for every ten full weekly contributions in a single year. Special rules differing in several respects from those for the rest of the crafts apply to cutters.

The Chicago insurance scheme is primarily a relief plan, yet its benefits are low. This is the penalty which any insurance plan must pay when adequate steps to regularize the industry have not previously been taken. Low benefits at the outset have a technical advantage, however, to a union trying to get insurance established in the principal clothing centers. Whatever else may be said, it is an impressive fact that in the first year, through joint contributions, the market put in control of the insurance office a fund of over a million dollars, to be spent as compensation payments for the workers of a single industry in a single city. The largest firm in the plan, Hart, Schaffner & Marx, contributed over \$125,000, aside from a like amount by its employees.

6 Rules Regarding Transfer to Other Jobs

Very often it becomes necessary for a firm to transfer an employee to another job as an alternative to laying him off. When this job pays a lower wage, an adjustment is

necessary. The plans differ somewhat in the rules with regard to this.

The wage adjustment made in the Dennison plan distinguishes between transfers due to unemployment and those due to other causes. In the early stages of the plan, whenever it was necessary to change a worker's job temporarily because of short delays due to machine breakage or other minor variations, the Unemployment Fund was drawn upon for payments that would normally have been made by the firm itself. The workers' representatives on the Unemployment Fund Committee therefore secured an amendment, providing that whenever the primary motive in transferring an employee is to retain his services with the company for the immediate benefit of the latter, the cost is to be met by the firm as an operating expense and not charged against the Unemployment Fund. Whenever the transfer is to avoid unemployment for the worker, the difference in pay is made up from the fund as per the following schedule: (1) time workers are entitled to their full hourly pay when transferred; (2) piece workers are entitled to 90 per cent of their average hourly earnings during the preceding six weeks.

Apparently neither the Dennison plan nor the two union plans take into account a permanent transfer to a lower-paid job. The Procter & Gamble plan does. The firm feels it cannot afford to keep a worker on a higher salary for almost forty-eight weeks a year if business forces it to transfer him to a lower-paid job in order to keep him employed. At one time a night switching crew of seven men at the railroad yard was abolished and the men permanently transferred to lower-paid jobs. Literal interpretation of the guaranty required the firm to pay the men extra wages. This was done from September 17, 1923, until May 1, 1924, at which time, after the required notice had been given, the following revision of the plan came into effect:

- 1 If the transfer is the result of a full or partial shut-down, or a temporary cessation of work in the department in which he is regularly employed, or an emergency in the department to which he is transferred, it shall be regarded as temporary and the

employee shall receive, during such period of transfer, his regular wage rate per hour.

2 If the cause of the transfer is the permanent termination of the particular department, or the particular job where he has been employed, it shall be officially recorded as a permanent transfer and the employee shall receive the wage rate which prevails for the work to which he has been transferred.

Under union rules a transfer to a lower-paid job must not involve a demotion in pay, and transfer to a higher-paid job involves the payment of the wage for that job. Nothing more will be said concerning transfer in the Cleveland plan or the Chicago plan because the attitude of unions toward the use of the transfer power, discussed in Chapter XII, precludes the use of this expedient to any large extent.

7 Incentives to the Employee to Seek Temporary Outside Work

Of the four plans under consideration, the Dennison plan alone attempts to provide an incentive to the employee to seek temporary outside work as a means of reducing the need for drawing upon the Unemployment Fund. In the Cleveland plan, the benefits are not in any way affected if an employee laid off should secure work immediately elsewhere, even if this were another employer covered by the agreement. In the Chicago plan, the requirement that an unemployed worker must register at the union employment exchange in order to be eligible for benefits, and the fact that all jobs in firms that are parties to the agreement clear through this exchange, make it impossible for a worker to get compensation when at work in another of these firms. But his right to benefits is not affected if, while waiting for the exchange to find him another job, he secures work in some other industry or some firm not connected with the agreement.

Under the rules of the Dennison plan, at any time after six days' payments have been made to any employee during any one continuous lay-off, further payments may be stopped unless the employee can convince either the management or the Unemployment Fund Committee that he has made reasonable effort to secure a job elsewhere. Aside

from the threat of withholding compensation, the fund provides a direct money incentive to the workers who find temporary jobs elsewhere. Any employee, whether he has dependents or not, who secures a full-time job elsewhere while unemployed, is guaranteed compensation equivalent to 80 per cent of his wages with the company, plus 10 per cent of his wages with the outside concern. This provision means that the firm will make up the difference between the guaranty and what the man actually earns. When the employee's temporary job is not full-time, the 10-per-cent bonus applies to the time worked.

It is interesting to observe how the provisions for the encouragement of temporary outside employment have worked out in practice, since firms which adopt insurance plans may be too optimistic concerning savings secured in this way. In the first place, much depends on the availability of other industries in the locality. There are few factories using the same type of labor in the neighborhood of Framingham, so that the Dennison plan can derive slight benefit from outside work. Besides, certain natural human motives play a part in the workers' reluctance to work elsewhere. There is a justifiable fear that in a period of protracted slack the employee who has a job will be the one kept out longest. There is also a possibility of friction because an employee who seeks a temporary job is under strong pressure to hide this fact and to pretend he wants a permanent one. He may even have to state to his fellow employees that he has quit his old firm for good. If this should cause misunderstanding when the employee wishes to return to his old job, he will be poorly rewarded for his cooperation in saving the fund unemployment payments.

Equal distribution of employment is a policy which makes the possibility of temporary outside work negligible. The period of unemployment that any one worker suffers becomes so short that it seems futile to try to find another job for the time involved. If a worker desires to relieve the fund by working temporarily at some other available job, he is limited to the possibilities of casual labor. It is natural that when laid off he prefers to use the time as a vacation or takes the opportunity to fix his house. Under the policy

of distribution of unemployment every little ripple in production is spread out to include a larger number of workers than should be concerned in such small disturbances, and thus gives rise to various types of dissatisfaction. At one time a group of men in one department were complaining that the foreman was unfair in not distributing lay-offs, while a group in another department were complaining because they were getting too much unemployment in comparison with others in the same department. Would it not be better to confine these causes of friction to as few as possible, by not distributing unemployment generally, and deal systematically with the few laid off?

The policy of equal distribution of work in the Dennison plan is combined with the payment of compensation for as little as a half day of idleness. This combination has some features that further remove the likelihood that employees will actively seek temporary outside work. In a representative period of five weeks ending March 8, 1921, of 2,072 days of unemployment paid for, the periods of idleness of the employees compensated showed that 544 days, or 26 per cent, were for periods of only one day or less and 900 days for from one and a half to two and a half days. The total of these two, 1,444 days, or 69 per cent of all days paid for, was for periods of idleness of not more than two and a half days. An employee loses so little by taking this time off, as a sort of holiday, that he has little incentive to look for a temporary job.

8 *Incentives to the Employer to Reduce Unemployment*

Considering the form of the plans, rather than the personalities of those who instituted them, the incentive to regularize employment is more immediate in the Dennison plan than in the Procter & Gamble plan because practically every employee is within the scope of the former, while the latter includes only those who have been in the firm for six months. In the Procter & Gamble plan, payments can be avoided in an emergency by laying off the workers who have been with the firm less than six months and transferring the insured employees to their jobs. This gives a leeway of from a quarter to almost a third of all the employees.

In addition, the fact that the firm can distribute a full four weeks of unemployment on all before payments begin puts less of a penalty on lay-offs than in the Dennison plan, which pays for all unemployment of a half day or more.

The biggest contrast on the grounds of incentive is between the Cleveland and Chicago plans. As these are likely to be influential in future insurance plans established by collective bargaining, their incentive features require detailed consideration.

The Cleveland plan has broken ground for important developments in the field of unemployment compensation. The incentive it provides to employers is individual, immediate, and continuous. The amount the employer saves depends solely on his own efforts. Every day of idleness prevented brings the employer nearer the goal of forty weeks' work and reduces the liability for compensation. Wages are thus actually higher or lower according to the regularity of work. The employer is penalized as much as 10 per cent of his direct labor payroll if he entirely neglects the responsibility of regularizing employment; he is rewarded by 10 per cent, or the proportionate amount, if he can reduce unemployment.¹

¹ Modifications in the system, suggested by a former business agent of the garment workers' union in Cleveland, include the establishment of a pooled fund rather than an individual one, so that the industry as a whole will bear the burden of unemployment payments. To maintain the individual incentive, he suggests that the employers adjust the rate of payments among themselves. Under this plan, particularly high guaranties would be required from outside shops, which are really responsible for bringing in the new workers at the peak seasons.

The suggestion of a pooled liability is not regarded favorably by the Manufacturers' Association. It is pointed out that the present plan is simple to understand, to calculate, and to administer. It presents no mathematical problems whatever, and there is a minimum of record-keeping and red tape. It does not burden the industry as a whole. The efficient employer who can achieve forty weeks of operation in a year loses practically nothing by it. Only individual factories are penalized. The bonus earned by the employer who provides work is shown up almost daily, or at least weekly, while a pooled plan involving uncertain refunds after long periods would impair the directness of the incentive and the immediacy of reward after performance.

The Chicago plan lacks a strong incentive to regularize employment. One element of this plan which seems to offer a reward to the employer is the provision that the unemployment fund of any firm must never exceed the amount required to cover maximum liabilities in benefits for two years to the employees of that firm. When a fund does reach this maximum there is a suspension of payments by both the firm and the employees until the fund gets so low that less than one year's liabilities are covered, except that those workers who had not contributed for one full year must continue to do so until they meet this requirement. But no money reverts to any employer under any conditions. The incentive to the employer, therefore, depends entirely on maintaining for some time conditions involving so little unemployment that a fund is accumulated covering two years' liabilities for benefits. Any partial effort fails to secure exemption from payment.

A moment's analysis of the possibilities shows that very few firms will be able to achieve a maximum fund. Taking the present wages as a base, if no unemployment payments whatever were made from the fund, it would take over four years of contributions from the employers and the workers to get the fund up to the maximum. But since the payment of benefits from the fund will surely have to be made the achievement of a maximum fund becomes more remote. Whatever incentive there is is weak because it is so hard to attain and because the reward comes so late. Incidentally, until the maximum fund is attained, keeping employees on the job fifty-two weeks in any year costs a manufacturer twice as much in insurance as keeping the same number on the payroll only twenty-six weeks a year.

Nevertheless, the existence of the fund should focus a good deal of interest on practices affecting continuity of employment. After all, the unemployment fund is a book account of money credited to a particular firm, and an employer will be somewhat more disturbed by evidences of its depletion than he would be by the less tangible facts. The more progressive firms are giving some attention to the development of methods of steadying work in the factory.

In other cases the tendency is to find means of avoiding payments by using the technicalities of the plan, as, for example, the waiting period of forty-four hours of unemployment for full-time workers and the additional four hours weekly for short-time workers.

Some pressure for regularization may come from the fact that, having once conceded an insurance plan under collective bargaining, the employers will face the danger of a demand by the union for higher rates on their part if the plan fails conspicuously to better the conditions for the workers. They have tried to safeguard themselves against this possibility by making it a cardinal principle of the plan that contributions by the employees should be equal to those of the employers, so that an employee will be less inclined to vote for higher payments.¹

Because of the prominence of the Chicago plan, it is important that it should be revised at an opportune moment to provide more of an incentive to the employer to regularize employment. That will stimulate fundamental progress in the industry. In the meanwhile there is a danger that in following some of the best features of this plan other industries may disregard the essential element of providing incentives to reform.

9 *Administration of the Rules*

Certain rules regarding the payment of contributions will be considered for a moment because their administration raises issues of importance to the success of insurance plans. One of these is what to do about discharges.

¹ It is a rather interesting fact that in the unemployment insurance plan of the women's garment industry in New York, the relative proportions of contributions agreed upon were 2 per cent of the wage bill by the employer and 1 per cent by the workers. The cloth hat and cap makers went this one better in a recent union contract by putting the whole 3 per cent cost on the employers. In actual practice the difference is largely nominal because these contributions by the employers to the employees were taken into account in wage increases, but the principle of employers' responsibility thus becomes the more firmly established.

(a) Discharge for Lack of Work

In the Dennison plan the following rule appears:

Whenever the volume of work of a certain class is, so far as can be seen, permanently reduced on account of changes in method, product, or market demand, and employees, on account of their specialized training or skill, cannot be or are unwilling to be transferred elsewhere, then such employees may be discharged. They should be given two weeks' notice or two weeks' pay, and the cost thereof should be charged against the operating expenses of the company. No expense should be charged against the Unemployment Fund on their account.

Action has been taken in accordance with this provision. In 1921, the Dennison Company found itself overmanned in several departments. As the contraction in the volume of business in these departments after the boom period of 1920 seemed permanent, it was decided to reduce forces by laying off some of the employees. Of 342 workers discharged from September, 1920, to March, 1922, 103 cases appear in which the reason assigned was "lack of work," occurring principally in the latter part of 1921.

No criticism can be made of a firm's use of the discharge power when work gives out. It is futile to think that under the competitive conditions of modern business, every firm will be able to avoid the need of reducing forces. But that does not mean that those discharged should be denied the temporary protection of an insurance plan. Under the Dennison plan such employees get only two weeks' notice or pay at most.

Thus the Dennison plan leaves matters in some doubt. All that the workers may conclude from the actual rules of the plan is that there is a reserve fund available for paying unemployment compensation to those whom the firm wishes to retain. It would matter little that the firm having such a plan actually retained the great majority of unemployed workers on compensation. Human apprehensions are such that most wage-earners would feel that they would be the ones discharged. This kind of plan of unemployment compensation does not relieve the workers' mind of fear any

more than fire insurance would if left entirely in the discretion of a fire-insurance company. Such lack of assurance concerning insurance does not aid in a solution of the modern problem of insecurity.

What the Dennison plan needs to conform to the best standards of insurance is the strengthening of the provisions regarding discharge, so that every permanent employee will know that if he should be so unfortunate as to be laid off, the fund will stand by him until he has had a fair opportunity to secure other work or to become adjusted. A calculation of the probable cost of allowing up to ten weeks of benefit for the 103 employees discharged for lack of work from September, 1920, to March, 1922, shows that this sum would have been well under \$20,000, an amount which the fund could have met without embarrassment. Of course, it needs hardly be said that, looking back at the actual experience, it is much easier to point out what might have been done than it would have been to anticipate a sure course of action at the beginning of a grave period of business depression. The firm was wise in not starting on too extensive a scale, for if it had been unable to meet its liabilities or found them too burdensome, the record would have been one of failure. By proceeding cautiously and as experience develops, no steps backward will have to be taken. The plan is a pioneer one and any criticism of its provisions is solely to point out standards that are important in connection with the future of unemployment insurance.

The Procter & Gamble plan guarantees forty-eight weeks of employment a year and therefore does not leave the rules in doubt. In the Cleveland plan, discharge for lack of work by the employer whose season has turned out disastrous is permitted, but is subject to the decision of the impartial chairman. In both the Cleveland and the Chicago plan, discharge for lack of work is subject to the rules of the collective agreement rather than of the insurance plan.

(b) Disputes Over Discharges for Cause

The interpretation of the rules regarding insurance may lead to misunderstanding and friction unless an impartial

agency or a joint committee to review the circumstances is made part of the plan. The author has chosen to show the experience of the Dennison plan in this connection because if the voluntarily established plan of a small company demonstrates the need of joint administration, its necessity in more elaborate schemes is legion.

One of the rules of the Dennison plan concerning discharges is:

Others may be discharged for lack of work when they have failed to prove themselves sufficiently reliable or efficient employees. Preferably such employees should be weeded out in prosperous times rather than during depressions, but sometimes, owing to scarcity of labor, this is impossible. When such employees are discharged for inefficiency, they should be given one week's notice or one week's pay. In doubtful cases, when inefficiency cannot be clearly shown, the employee shall be given two weeks' notice or two weeks' pay. In the former case, nothing shall be charged against the unemployment fund. In the latter case the second week's pay may be charged against the unemployment fund, but not the first week's pay.

Of the 342 discharges previously mentioned, 179 cases were listed under the head of "unsatisfactory work" and "inefficiency." Unfortunately, some of these workers entertained a sense of grievance on the ground that the complaint of unsatisfactory work was a pretext and that they would not have been laid off if business conditions had been better. For this reason they thought they were entitled to unemployment compensation.

As will soon be shown, the company was able to vindicate itself of this charge. But the matter is important because it is undoubtedly a possible source of friction that must be taken into account. In every period of slack or depression, "house cleanings" are engaged in by most firms. Employees who are discharged on the ground of "inefficiency," instead of being laid off because of lack of work, will not be able to claim unemployment compensation and will feel a deep grievance. In one firm a worker was dismissed by a foreman because he was considered "not worth the pay he is getting," although he was more efficient than others working on that job at lower pay. Foremen or superintendents who may

desire to save payments from an unemployment fund may discharge border-line cases on the ground of unsatisfactory work rather than lay them off for lack of employment.

(c) Desirability of Joint Control

The experience on this point suggests the important principle that an unemployment insurance plan should give the worker some protection against arbitrary authority in hiring and firing. As a minimum, workers must have the right to air their grievances and have a just ruling upon them. In the Dennison plan there is a joint Unemployment Fund Committee of four, two of whose members are appointed by the General Works Committee. About 10 per cent of the employees discharged for unsatisfactory work in the Dennison Company in the latter part of 1921 appealed to the General Works Committee, stating that they had not been laid off for good cause, and claimed unemployment compensation. In these cases the management actively defended its acts by submitting the men's records, showing that in some instances new workers had been hired for the jobs thus vacated and that in other cases employees from related departments had been transferred to these jobs. This proof and other evidence that lack of work was not the compelling reason for discharge were put before the Works Committee and it did not vote reinstatement.

In most plants some practices causing irregularity exist which the employees could point out to the management. Aside from establishing the joint administration of the rules of unemployment insurance the employer would do well to couple with it some organized method of dealing collectively with his employees, whether by shop committee or by collective bargaining with a union, to allow for their constructive participation in solving the whole problem of irregular operation. Practically every plant that has an unemployment compensation plan does have some form of collective dealing with its employees. In the Procter & Gamble Company it is a rudimentary one. The firm "reserves the right to discharge the employees at any time for any cause." For some years, however, the firm has had a conference commit-

tee of employees' representatives which regularly meets with the supervisor of the Employees Service Department. It has the right to voice an opinion on any matter affecting the workers, so that the opportunity of criticizing objectionable features of the plan or securing other changes is not entirely lacking.

10 Termination of the Plans

The Dennison Company has not obligated itself to make further payments in case the \$150,000 already laid aside are exhausted. Whenever the amount of money in the fund falls below \$50,000, or whenever the total disbursements from the fund during twelve consecutive months exceed that amount, no further disbursements at all are to be made until the management and the Works Committee jointly reach some new agreement, establishing a modified basis of compensation. This might mean that the compensation scale would be reduced to considerably lower rates. If, however, additions to the fund are voted by the directors, so that more than \$50,000 is on hand, or if the lapse of time removes the twelve-month restriction noted above, the available funds may be expended again in accordance with the customary rules of the fund.

The Procter & Gamble Company has reserved the right to terminate or modify the guaranty upon serving six months' notice to that effect. This right of the firm to terminate or modify the plan by six months' notice seems to be the only limitation on the length of the benefit period, for, theoretically, insured employees for whom there is no job at all would be entitled to compensation indefinitely on a forty-eight-week-a-year basis.

Both the Cleveland plan and the Chicago plan expire when the industrial agreements between the union and the manufacturers end. But in the one case all liabilities and rights to benefits cease at once, provided the promises of the guaranty have been met, while in the Chicago plan, the money in the funds remains with the trustees, for distribution as unemployment benefits among those who were contributing employees at the time of the termination.

In one important respect the Chicago plan goes beyond

that of any other scheme in America. It creates a valid trusteeship and confers a legal right upon the beneficiaries to take action for the payments due them. Attorneys representing both sides have made an exhaustive study of the legal requirements necessary to put the agreement into binding legal effect. The plan is thus the first legal contract concerning employment to have been drawn up in the United States between a union and the employers in the industry. All moneys received by the boards of trustees previously mentioned are held as a special trust fund in which neither the manufacturers nor the unions have any property or interest and which is not affected by any claim against either of the two parties. No part of the fund may be paid to any one other than the contributing employees, and these in turn may not transfer or assign their rights in the fund.

It is intended that the board of trustees shall be the final authority in the administration of the fund, and it is given power to make the rules and regulations required to carry out the provisions of the agreement. A majority of the board is necessary for a decision, which then becomes binding on the two parties. On questions of interpretations of clauses in the collective agreement between the union and the manufacturer which are concerned with wages or working conditions, the trustees are not, however, the final power. These matters are provided for in the main agreement between the union and the manufacturer, which sets up impartial arbitration machinery.

11 Expenditures Made from the Funds

To the end of 1920, less than \$10,000 of the Dennison fund had been used in payments, and these were of a type not really belonging to the plan under later rules. It was not until 1921, a year of general depression, that the fund was drawn upon heavily. The week ending January 11 was the high mark, the payments made amounting to 4 per cent of the payroll computed on the basis of man hours. But in the whole year 1921, however, only about \$25,000 was spent in unemployment benefits, of which adjustments of compensation when transferring to lower jobs cost about 30 per

cent. About \$35,000 of the Unemployment Fund has been expended in all. It is not surprising that the fund should have been drawn upon so little during these few years. It has been made clear that the scheme did not go into effect until the Dennison Company had achieved considerable confidence in its ability to keep production fairly constant. The small compensation paid in the case of employees discharged for lack of work also relieved the fund of payments.

No employee covered by the Procter & Gamble plan has as yet sustained over four weeks of unemployment in the calendar year, so that payments for idle time have not been made. In the few instances during the first year of the plan that the company had to compensate workers temporarily transferred to less remunerative jobs, the difference in wages was recorded in a special "Employment Guaranty Account."

In a previous section some data on the payments made under the Cleveland plan were given. For the first year of the Chicago plan benefits were not paid, in order to build up a fund. Liability for benefits began on May 8, 1924, but the poor trade conditions brought much idle time and about a million dollars was spent to February 1, 1925. The total collected to that date from May 1, 1923, when the plan came into force, was \$1,800,000.

12 *Other Insurance Plans*

Perhaps the best known plan of unemployment compensation, outside of those discussed, is that established in 1920 by the Dutchess Bleachery, Inc., of Wappingers Falls, New York, a firm of about 600 employees. This plan has aroused widespread interest because it is part of a partnership and profit-sharing arrangement of an unusual sort. The net earnings of the firm are distributed between capital and labor as follows: first, a dividend of six per cent is paid to invested capital; second, a sinking fund of \$85,000 (practically equivalent to the six per cent dividend for any one year), is set aside as a reserve fund for the payments of dividends in slack years; third, a sinking fund of the same amount is set aside as an unemployment compensation fund, and finally, the net

profits remaining are divided equally between the stockholders as a group and the employees. It should be noted that the appropriations to the sinking funds need be made only when these funds are below \$85,000 each. If, for example, there were \$85,000 in the employees' sinking fund at the beginning of any year and no disbursements were made from it during that year, no addition to the fund would be made. The scale of benefits paid depends on how much is in the fund. When it amounts to \$50,000 or more, an employee temporarily laid off receives half pay for all the time he loses under forty-eight hours a week, but if the fund is less than \$50,000, this pay is given only when his working time falls below thirty-five hours a week. The fund has fallen below \$50,000 in some years but has never been entirely exhausted. It is recognized as being in successful operation.

The subject of unemployment compensation has aroused the interest of quite a few of the progressive concerns of the country and they are studying the problem. Some have already established their own plans.¹ Among the various forms are those of the Delaware and Hudson Company, of Utica, N. Y., Gordon & Ferguson, a cap firm of St. Paul, Minn., the United Diamond Works, Newark, N. J., and Leeds & Northrup, of Philadelphia, Pa. It has also become part of union contracts, such as those of the United Cloth, Hat and Capmakers' Union and the International Fur Workers' Union, and is coming increasingly to the fore. Thus we are seeing the growth of a movement in this country which would have been considered as visionary only a few years ago. So certain is the growing interest that the commercial insurance companies are making efforts to secure authorization to write unemployment insurance.

VI WOULD THE COST OF UNEMPLOYMENT INSURANCE BE PROHIBITIVE?

The indications are strongly to the effect that over a long time the cost of an organized scheme of insurance is not

¹ See Margaret Gadsby, "Steadying the Workers' Income—Establishment Unemployment Insurance Funds," in the *Monthly Labor Review*, April, 1924, pp. 152-174.

prohibitive. A large and well-known company which laid off many workers in 1921 made a study of what it would have cost them to compensate their workers if they had adopted a liberal insurance plan which a special committee of executives secretly drew up in 1922. It found, to its surprise, that while the expense of insurance in 1921 would have been 10 per cent of the payroll, the average cost for the whole period 1905-1921, inclusive, would have been only 1.7 per cent of the payroll.

Mr. Rowntree, discussing the financial aspects of insurance in America, wrote in 1921:

Is this unemployment insurance financially possible? . . . I think it is correct in England, and not very far out in America, that if you were to find a sum equivalent to $3\frac{1}{2}$ per cent on your wage bill, it would be sufficient to enable you forever to remove the menace of unemployment from every worker in the land. You could secure with that $3\frac{1}{2}$ per cent a sum which would provide unemployment insurance not equal in amount to a man's earnings, but sufficiently large to remove the fear of hunger, of cold, of suffering when a man is out of work.¹

Mr. Rowntree's prediction has since been more than borne out in his own firm in York, England, which only a few months before had started a liberal insurance plan supplementing the benefits of the compulsory government insurance. The provisions of the original plan required that the company set aside 1 per cent of its wage bill annually, until the unemployment fund reached £50,000, or 5 per cent of its annual wage bill, whichever was the greatest. After this the company agreed to set aside enough to keep the fund up to that amount, unless this would require payment of over 1 per cent of the wage bill. Despite the severe depression of the first few years of its experience, the cost of the scheme was considerably less than 1 per cent of the wage bill, and the maximum has, therefore, been reduced to only £25,000, or $2\frac{1}{2}$ per cent of the wages.²

Nevertheless, it is too soon to make positive predictions concerning the cost of unemployment insurance. As long as

¹ B. Seeborn Rowntree, "The Future of Industry," in *The Survey*, December 3, 1921, p. 364.

² *System* (London), January, 1923, p. 13.

this is carried by individual industries, a great deal will depend upon the extent to which the industry is regularized before or after the adoption of the plan. In any event, much more experience will be required before reliable estimates can be made. This experience must take time because cost can be figured only on a long-time basis, in which the good years are averaged with the bad. The needle trades are experimenting with insurance involving three per cent of the wages, and it does not appear, at present, that in their industry this is enough to do much more than establish the principle.

VII SHOULD UNEMPLOYMENT INSURANCE BE CONTRIBUTORY?

Among the questions which remain for consideration is whether the cost of insurance should be borne entirely by the employer or should be shared in some manner with the workers. The issue has aroused considerable discussion. When the question came up in connection with the English insurance bill in 1911, a conference of trade-union representatives voted overwhelmingly for the contributory basis, because they feared that it would degrade labor to receive free bounties.¹ A small group held that labor was not responsible for unemployment and, therefore, the employer, aided by the state, ought to bear the whole expense. This view the trade-union movement in England has now adopted, but is willing to allow some slight contribution by the workers because it is felt that this would give them a greater property right in the funds.² American labor unions, on the whole, have the same point of view. The Chicago plan, for example, is a compromise on the point, since Mr. Sidney Hillman, president of the Amalgamated Clothing Workers and others had previously made it clear that they believe that unemployment insurance is properly a charge on the industry.

¹ Joseph L. Cohen, *Insurance Against Unemployment* (London, 1921), p. 259.

² *Unemployment Insurance by Industry*, published by the National Joint Council representing the General Joint Council of the Trades Union Congress, the Executive Committee of the Labour Party, and the Parliamentary Labour Party (London, 1923), p. 9.

On this question the author has reached a conviction in favor of a certain form of contributory insurance which has not, to his knowledge, been tried or suggested elsewhere. Before explaining this, it is necessary to make clear, however, that where the employer voluntarily prefers to assume the whole cost, this undoubtedly has advantages in administration. Under contributory plans, employees would expect an occasional vacation paid for from the funds, and when leaving the firm after having made many payments they would insist on being given some refund. Contributory plans also involve much "red tape" and system which non-contributory plans can avoid. The disadvantage in the case of the employer who assumes the whole cost is that he usually does not expect to provide compensation for a period of depression, involving long periods and heavy payments. The employer generally does not regard himself responsible for such protracted periods of unemployment or for emergencies out of his control, and feels it is just to expect the employees to share the burden with him after a certain amount of compensation has been paid him.

The author's proposal, for this reason, is that unless the employer voluntarily assumes the cost of a plan of compensation meeting the highest standards of insurance protection, such plans should be made contributory on the following plan: The two parts of the fund be kept separate for accounting purposes. The employer's part of the joint fund should be used to compensate for all short periods of unemployment, as, for example, the first four weeks or eight weeks of unemployment in a year, while the employee's part would be used for all unemployment beyond that, as in periods of great business depression. Thus the employer would have every incentive to regularize employment, especially with regard to the ordinary seasonal and short-time fluctuations, while for periods of great depression or disaster which could not be averted by his efforts there would be reserve funds in the form of employees' savings. There are undoubtedly difficulties of administration in such a plan, but it combines in a practical way the two basic principles of an insurance scheme—prevention and compensation.

VIII PROPOSED AMERICAN LEGISLATION

While there is no insurance legislation in this country as yet, the Huber Unemployment Prevention Bill on two occasions nearly passed the upper house of the Wisconsin legislature, and bills similar in purposes have been introduced in Massachusetts, Pennsylvania, and elsewhere. In spite of the publicity given them, it does not seem likely that insurance laws of this type will make real progress in the legislatures for some time, and have even less chance of success in hurdling constitutional difficulties. The Huber Bill embodies certain features, however, that make it of particular interest.

This Bill requires that industry shall compensate a workman temporarily while unemployed, provided he has worked for one or more employers for six months and is capable of work but unable to obtain suitable employment. During the first three years of the law the compensation provided is one dollar a day for not more than six weeks a year, but after the three-year period this rate is payable up to thirteen weeks a year. There are, of course, the usual restrictions as to the conditions under which compensation is granted, and provisions for impartial administration. The vital features of the bill, however, are two: first, that the whole cost of the plan is put on the employer, and, second, that the employers included in the scheme are required to form a mutual insurance company, as they do under workmen's compensation laws. The rate of contribution of each employer to this insurance company is to be in accordance with the amount of unemployment that has to be paid for from the mutual insurance fund to his employees.

Under this plan, therefore, the employer who is responsible for most unemployment pays the most, just as the employer who allows most accidents to occur in his plant pays the highest workmen's compensation insurance rates. The parallel drawn with workmen's accident compensation goes further. Accident companies and other insurance carriers of this type maintain experts and conduct researches to reduce the hazards of industry, and are a force in prevention and progress. It is expected, likewise, that the mutual unemployment-insurance carriers will hire experts to study the

causes of unemployment fluctuations in different industries and will aid individual employers to reduce their rates by cutting down irregularity of operation. Professor Commons, who is considered the main proponent of the Huber Bill, expects such a law to have the same effect on the employers with regard to regularization that the workmen's compensation law had in stirring up enthusiasm for safety.

The author believes that if the Huber Bill were really put into force, not one, but many mutual insurance companies would have to be permitted, so that industry-wide cooperation and autonomy would be furthered. A question much discussed in recent years in England is whether insurance by industry shall be instituted or the present government plan continued. The universality of the British insurance law allows for two alternatives. Shall the British insurance scheme remain a huge government-managed enterprise controlled and directed by a huge staff at national headquarters and with an army of local officials and agents? Or shall it be decentralized in operation in part, by allowing individual industries to set up their own insurance schemes under general rules and supervision of the government? The issue hardly presents itself in America at present because insurance plans here are voluntary, and any group of employers could join together in a scheme which would be mutually satisfactory to them, whether the technical qualifications of an industry-wide scheme were met or not.

IX CONCLUSIONS

The preceding discussion has attempted to show that the principle of unemployment compensation is already established in the practice of industry, but that what remains is its extension and its organization in a more effective form. It has been indicated that unemployment compensation plans bring many important advantages to business, and themselves reinforce the movement for regularization. Details of four typical plans were considered. They have proved successful thus far; experience will improve them. The subject is now considered so important that unless compensation becomes widespread through voluntary action or

collective bargaining, only constitutional barriers will prevent the spread of state legislation forcing it upon employers.

The employers in this country are, generally speaking, opposed to such legislation as being government interference in business. They feel that the good that the legislation does is often nullified by the unnecessary impairment of individual initiative and by the inefficiency of government agencies. But the unemployment problem has become an issue of great prominence. No longer can it be disregarded.

The alternative open to American industrial leaders is clear. Business observers are counseling industry that the choice is now between the establishment of such plans by private initiative without government aid, and through legislation. Publicists, economists, and some business leaders themselves are urging legislation. Considerable pressure for legislation is exerted by social agencies and trade-unions. A report on American insurance plans by the Industrial Management Council of the Rochester Chamber of Commerce uses its cover page to say, "Whether we like it or not, we cannot ignore the possibility of unemployment insurance being forced upon us." An employers' organ, *Law and Labor*, points out, "Many attentive students have expressed the idea that unemployment must be insured by private initiative unless it is to be handled ultimately by some more objectionable method.¹"

Few industrial measures have aroused so little criticism and brought so much praise as the unemployment compensation and insurance plans now in existence in this country. There are few things which employers can do for their workers which are as far-reaching. There is every reason for increasing study and experiment in this field. The next decade should bring a large increase in the number of employees protected by such plans. If not, is any alternative left but pressure for legislation?

¹ July, 1922, p. 202.

CHAPTER XVI

A COMPREHENSIVE PROGRAM OF REGULARIZATION

IN the literature of unemployment and business cycles, certain policies have been advocated which, if added to the measures already considered, would constitute as advanced a program for regularization as the present stage of knowledge permits. Some of the proposals to be considered have been mentioned in previous chapters. Others have been reserved to the last and are discussed only briefly because they have been so exhaustively treated in reports and studies of current circulation. In this connection the reports and investigations of the past fifteen years have been carefully reviewed. Thus the final result should be a many-sided program of regularization, embodying the best features of all.

The principal elements to which insufficient attention has been given in this volume, but which are made much of in other studies, are four in number.

The first three are social and governmental measures whose chief purpose is to modify the fluctuations of the business cycle, although they apply, as well, to seasonal and chronic unemployment. They are closely related to one another, and their evolution shows up significantly the development of economic thinking about the whole problem.

The fourth deals with the adaptation of the worker to the needs of a dynamic industrial order, and is largely concerned with vocational guidance and training. Following the discussion of these four proposals, other helpful measures are considered and some attention is given to the programs developed by international conferences on unemployment.

I LONG-RANGE PLANNING OF PUBLIC WORKS

The best-known suggestion for reducing the severity of business depressions is the long-range planning of public

works. This recommendation is the one thing upon which there is complete unanimity and which is invariably found in programs against unemployment. Public works form more than 25 per cent of all construction carried on in the country.¹ At present the public work carried on by governmental authorities does not take into account the conditions that may arise a year later or several years later. It is proposed that instead of having the government a competitor with private business at a time when construction work is booming, some of the public works that can conveniently be postponed should be deferred annually until a year of depression, when the aggregate reserve will be an influence in mitigating unemployment.² In addition, should it be possible during a bad year to authorize more than the average amount of work, this conjuncture of unusually large appropriations for current work and the appropriations on hand for public works previously authorized but deferred, should have a decided influence on business conditions. Such work would include the construction of public buildings and roads, improvement of rivers and harbors, land reclamation, afforestation, and similar projects.

The advocates of long-range planning of public works take pains to distinguish it from work sometimes started during depressions merely to provide jobs for the unemployed in preference to granting them charity. The economical operation and general success of the long-range plan depends upon limiting it to the public works which would be constructed

¹ *Seasonal Operation in the Construction Industries, op. cit.*, p. 138.

² A significant report published in 1924, by English economists and statisticians, in discussing a proposed plan to redistribute the expenditures on public works in Great Britain, states: "In the trade cycle immediately preceding the War, the actual expenditure was incurred in a manner very nearly the exact opposite to that which the scheme suggests" (p. 52). Detailed statistics supplied by them show a contrast between actual expenditure and the proposed budgeting that proves conclusively how valuable a factor in mitigating cyclical unemployment the widespread adoption of the principle of long-range planning would have been. (*Is Unemployment Inevitable? Investigations and Recommendations* by a group consisting of J. J. Astor, A. L. Bowley, Robert Grant, J. H. Jones, P. J. Pybus, B. Seeböhm Rowntree, D. Spring-Rice, F. D. Stuart and W. T. Layton, Chairman.)

in any event during ordinary times. Even the idea that such public work should be started in districts where there are the greatest number of unemployed, rather than where needed, is opposed by some authorities, so that the work may not become demoralized and the project uneconomical. Nor is it intended that the need of individual citizens shall be a consideration in the selection of those who are to get employment. Thus the planning of public works is a measure intended primarily to make the fluctuation of the business cycle less violent, and the wholesome effects in reducing the sufferings of unemployment are incidental benefits. The economies of starting construction work in a period when material and labor costs are low and other conditions are favorable are urged as additional advantages to the state in basing operations on such planning.

That the policy is needed is borne out by testimony too voluminous to summarize. American economists have estimated that if the federal government, the states, and the municipalities followed this policy, they might be able to withhold perhaps as much as \$300,000,000 a year for the public-works reserve fund. Continued for four years, there would be a reserve of \$1,200,000,000 available for the next. If that were a year of depression, this would make a considerable difference in the purchasing power of the workers and in the state of business.¹

No one opposes long-range planning. It is urged alike by radicals and conservatives, by socialists and capitalists. It is one of the chief governmental measures urged by organized labor here and abroad. Since it involves no cost to the government and "only the effort of taking thought," it will not in the long run add to the total demanded from the taxpayer, and, if intelligently administered, may actually lessen this total. It has the merit of conflicting with the interests of few economic groups, if with any. It involves no governmental compulsion on any private citizen. Therefore, why not put the policy into effect at once?

¹ President's Conference on Unemployment. *Business Cycles and Unemployment*. A report by a committee of the conference, including investigations made under the auspices of the National Bureau of Economic Research (New York, 1923), p. 235.

Unfortunately, significant progress in long-range planning is dependent to too large a degree on progress in the efficiency of governmental administration as a whole. With our more or less disjointed system in America, it would be necessary to impress the need of such planning on the numerous departments of the federal government, the forty-eight states, and their many administrative subdivisions, and the large number of local governments. Our difficulties in this respect are likely to be much greater than those in England, where government is more unified and centralized, and administrative technique based on better precedents. Yet it would be simple to win over the officials and legislators of the country to the *idea* of long-range planning, as compared to securing the preparatory legal and administrative changes that would be required for an effective working out of that policy. For this would involve different practices of governmental operation, also in many instances amendments to state constitutions and city charters, that would not be easy to secure.¹

The numerous difficulties to be met need not be considered in detail here. Some of the steps that must be taken are included in the report on the subject made to the Unemployment Conference.² Long-range planning requires the coordination of the building programs of the various departments, the preparation of detailed plans and keeping them current so that they may be acted upon as soon as an emergency is declared, the adaptation of the methods of

¹ The procedure in preparing and letting contracts for school construction in New York City involves fifty different steps, each required by statute or ordinance, or fixed in practice because of years of experience in the transaction of public business. The contracts for the equipment in these buildings have about thirty different steps, and a similarly elaborate procedure must be followed for every job for which the estimated cost is \$1,000 or more. See *Seasonal Operation in the Construction Industries*, *op. cit.*, pp. 200-202.

² *Business Cycles and Unemployment*, *op. cit.*, chap. xiv, on "Long-range Planning of Public Works," by Otto T. Mallery. Another comprehensive discussion is that of W. C. Clark, "Regularization of National Demand for Labour by Government Employment," in the *Proceedings of the Eighth Annual Meeting of the International Association of Public Employment Services*, pp. 16-40, published in 1921 by the Department of Labour, Ottawa, Canada.

appropriating funds for public work so that financial red tape will not clog the planning machinery, the assignment to some definite body of the responsibility for declaring when the emergency exists, and the inculcation in governmental authorities of the habit of projecting construction programs in their entirety instead of acting upon them piecemeal. Each effort that removes a legal or a human obstacle in the path of long-range planning will tell in the final result.

The chief difficulties would not, however, be disposed of when the administrative and legal machinery had been adapted so as to make planning possible. For long-range planning requires continuity of policy. This is not a marked feature of American government, whether national, state, or local. Nor is careful planning found to be of the essence of democratic government in general. Indeed, its absence is one of its outstanding weaknesses. Communities do not often anticipate. They act when pressing conditions arise, if they do then! Many of our important laws have been the result of public catastrophes rather than of experience. Added to these difficulties are those associated with the "log-rolling" activities of legislators when a program of public work is under consideration.

If these three characteristics—present inefficiency of governmental machinery, lack of continuity of policy, and inherent indisposition to plan—are more or less permanent phases of governmental administration in America, it is a question how much we may expect in the near future from this captivating and perfectly logical policy of long-range planning of public works. The hopeful thing is that interest in the measure is greater than ever before and therefore some progress is certain. On March 18, 1923, Secretary Hoover addressed a letter to President Harding, recommending that, in view of the tremendous activity in construction throughout the country, the government should not undertake at that time the building program authorized by Congress at its previous session. President Harding accepted this as the Administration's policy. But permanent progress has not been made. In spite of the exceptional severity of the industrial depression of 1921, Congress did not see fit to adopt the Kenyon Bill (67th Congress, 1st

Session, S. 2749), embodying the recommendations with regard to planning of public works which the President's Unemployment Conference had agreed upon. Furthermore, the aggregate public works of states, cities, and towns is much more important than that of the federal government alone. In the states the beginning of long-range planning as a principle may be found in laws passed by Pennsylvania, California, and Wisconsin, setting up bodies to advise the Governor when an emergency in employment exists, so that public works may be augmented, but it remains for the experience of the next depression to see how effective this will prove.

There is a long road to travel in securing long-range planning and the issue must be kept in the fore until planning has become a habit. This means that public interest must persist through the transitional period when the many minute problems of legislative drafting are solved, so that the required administrative changes and constitutional amendments may prepare the way for effective action. Whatever progress will be made, therefore, will be the result of the most detailed investigation and of persistent educational campaigning by bodies of public-spirited citizens. Otherwise the inertia will retard progress in this direction and long-range planning will remain, as it has been in the past, an aspiration rather than a reality.

1 Other Governmental Policies That Would Promote Regularization

Governments play a double part in a program for regularizing employment. They are, themselves, huge consumers and are also large employers. In both capacities they have an opportunity to revise their methods of administration thoroughly.

(a) Standardization of Specifications

If public authorities are to cooperate in a program of regularizing employment, why limit this aid to long-range planning? There are many other ways in which greater

efficiency on the part of governmental authorities would aid in steadying work. Practically every phase of management technique discussed in Part Two applies in greater or less degree to governmental administration. For example, governmental purchasing authorities should aid the movement for standardization. Among the instances of flagrant disregard of the principle of standardization cited by the Committee on Waste is a draft questionnaire used during the war which was of such nonstandard size as to require special filing cabinets.¹ When Vice-President Dawes was Director of the Budget, the Federal Specifications Board was organized, which has begun to unify governmental specifications. But there is even greater need for such action by the state and municipal governments. In many instances different departments of a city or state buy the same material at the same time at different prices and with different specifications. These uncoordinated purchases of supplies, construction materials, and other products by state and municipal government departments amount to about \$700,000,000 a year, so that their influence on the market is important.²

Governmental labor policies could well be overhauled. Among the haphazard methods complained of is the following, reported in a letter to the author written by the president of the National Federation of Federal Employees in December, 1921.

I have never heard of any provision for systematic transfer between departments to cover seasonal needs. In fact, although there is a reemployment register maintained by the Civil Service Commission, the lack of interbureau and interdepartmental cooperation and uniformity so far as employment policy is concerned, is such that the reemployment register is to a great extent not utilized. It actually happened a few months ago, when one branch of the War Department was dismissing people by hundreds from one end of the big Munitions Building here in Washington, another division of the same department housed at the other end of the same building was adding to its force from an entirely new lot of applicants.

¹ *Waste in Industry*, *op. cit.*, p. 11.

² "Unification of Purchase Specifications by American Industry," in the U. S. *Monthly Labor Review*, July, 1923, pp. 256-258.

Government bodies have not even cooperated with public employment offices when hiring temporary labor. In England, after a comprehensive system had been established at great expense, the public authorities were slow to hire temporary labor through the public exchanges.¹

(b) Seasonal Planning of Construction and Purchases

The principle of adjusting public works to trade depressions applies with even more force to seasonal slack seasons. There is no reason why government bodies should not cooperate in doing as much of their repair and construction work in winter as is practicable. They should apply the same policy in purchasing, so that orders for government supplies will serve as an important slack-season activity for industry. One can list many supplies which might be ordered with this in mind, as, for example, military uniforms. They should adopt the policy so strongly recommended by the Bituminous Coal Commission of 1920, as well as by others, and purchase, receive, and store coal during the summer months in anticipation of winter's requirements.

A survey of seasonal construction shows that "public works are at present serious offenders in contributing to peak activity."² The necessary legal procedure imposes such a delay that when the contract is finally awarded it is usually found necessary to rush public construction to completion. Often this is done in competition with private building when construction costs are at their peak. Among the few cities in which public agencies have been endeavoring consciously to adjust their construction to the slack seasons are Kalamazoo, Mich., and Philadelphia.³

An appropriation of \$5,600,000 to the University of Minnesota covering a ten-year period has enabled that body to plan its construction with special reference to building during the winter months. Interesting data on various

¹ Bruno Lasker, *The British System of Labor Exchanges*, U. S. Department of Labor, Bulletin 206 (Washington, 1916), p. 35.

² *Seasonal Operation in the Construction Industries*, *op. cit.*, p. 2.

³ *Ibid.*, p. 142.

aspects of seasonal planning of public works are contained in the study cited above.

These "minor" measures may be considered a good test of the interest which the national government and the state and local bodies evince in the whole subject of regularizing employment. The point made in Chapter III, that seasonal regularization is both a test and a preparation for progress in eliminating cyclical fluctuations in industry, applies with full force here. Some of the same governmental difficulties that prevent administration of government purchases so as to reduce seasonal fluctuations stand in the way of long-range planning of public works.

2 *Long-Range Planning by Public Utilities*

It would be desirable if not only public authorities, but all businesses, kept a long-range plan in mind. The vast majority of private industries have to be appealed to for cooperation on a voluntary basis. But there is an important class of industries privately owned which have a public character, and over which the government has established definite control. These are the public utilities—the great railroads, the local water works, gas works, and similar enterprises, distinguished in law by their obligation of public service. These semipublic industries engage in construction work and make purchases aggregating enormous amounts each year. Railroads alone spend more than \$1,500,000 for materials and supplies each year out of current operating expenses.¹ If, therefore, the public utilities joined the governmental authorities in following out a plan of long-range planning and seasonal adjustment, there is no doubt that the reduction in the severity of the fluctuations of business would be substantial. At the same time this method of planning improvements and purchases of equipment might well prove a measure that saves the utilities the extra costs of work taken on at the peak.

In some respects the opportunities for planning of construction and purchases by the public utilities are better

¹ *Business Cycles and Unemployment*, *op. cit.*, p. 201.

than those of public authorities. Public utilities have a more continuous leadership; they are fewer in number, and for the most part are already under unified control. The railroads of this country, for example, are under the control of the Interstate Commerce Commission. This body might be given the authority to stimulate and perhaps enforce better planning. The difficulties that many public utilities may experience in putting the policy into effect are chiefly financial. The narrow margin of earnings forces many to buy from hand to mouth. This, however, is not true of all. Railroad executives are showing a hopeful interest in the problem of regular work. In the *New York Times* of May 4, 1923, it is stated that the railroads had embarked upon a policy of buying their coal early and of expending a good deal of money for coal-storage facilities. Should this not be a permanent policy? More important still is a "move to stabilize the railroad industry," reported in the *New York Times* of September 19, 1924, resulting from a conference of the executive committee of the Association of Railway Executives. A thorough study of the subject has been projected, including conferences with the Interstate Commerce Commission on the subject. The item in the *Times* states:

The first steps will be taken within the industry. Attention will be concentrated upon keeping the workers on the job as many days out of the year as possible. The idea that track-maintenance work can be done only at certain seasons of the year, for example, may be discarded. In cases where it is impossible to keep a man on a specific operation the year round, attempts will be made to sandwich in other work.

According to the ideas expressed at the meeting yesterday, this will be followed by an effort to stabilize other industries closely connected with the railroad business. Through the placing of orders in dull times, and by continually making provision for future requirements regardless of prevailing business conditions, this can be accomplished. It was pointed out that the purchasing power of the railroad industry is such that even in itself it can help to steady business in other lines.

II PUTTING BRAKES ON THE BUSINESS CYCLE

The accumulation of a reserve of public works and purchases by the government and by public utilities would mitigate the severity of a year of depression, but from a practical standpoint the aggregate is not likely to be large enough to make a fundamental difference in the fluctuations of the business cycle. What is needed, therefore, is a measure which will enforce a degree of long-range planning upon business as a whole. Until recently the opinion seems to have been that the business cycle was practically unalterable and that planning of public works was about the only measure that would make cyclical unemployment less severe. The newer attitude is decidedly that cycles need not be as severe in the future as they have been in the past, and that economic measures can be devised which will bring them under a considerable degree of control. This is a most significant advance in our thinking concerning prevention of cyclical unemployment.

The attempt to control business cycles begins with a more comprehensive analysis of its character. The "descriptive analysis" of the cycle by Dr. Wesley C. Mitchell seems to have been the pattern in almost every recent study,¹ as against the special interpretations of the business cycle that were found in the past.² Many economists seem to agree that, though complicated in every case by special circumstances, the business cycle is in the main a credit phenomenon. The attempt to bring business cycles under control can, therefore, use credit as one tool.

Business operations at all stages in the cycle are financed largely by borrowings. In periods of reviving business, such borrowings aid business expansion. When prices rise rapidly and prosperity becomes widespread, the movement may continue until prosperity becomes intense—and there ensues a period of "inflation." At such peak periods, the intensified business activity may result in relatively small

¹ Wesley C. Mitchell, *Business Cycles* (Berkeley, 1913). Most American studies, and recent English ones, have quoted freely the material in this volume.

² *Ibid.*, chap. i, discusses these theories.

increases in production in some industries because the labor supply is fully engaged and one firm can expand only at the expense of a competitor. As increasing costs of doing business raise prices and give the appearance of still greater prosperity, a speculative boom in some industries may lead to an oversupply which later forces curtailment of production until the supply of goods on hand is absorbed. This, of course, means much unemployment. For several sound, business reasons, therefore, it is wise that credit should not be indiscriminately extended during a period of prosperity; but rather that when a period of inflation seems imminent, the banks should become more conservative in extending credit.

There is little disagreement over the principle that if credit were wisely and skillfully manipulated in this fashion the business cycle would be subjected to moderating influences. Two problems remain, however. The first is to find the agencies to do this. The second is to find a more certain way than we have now of knowing just when such credit restriction should be practiced.

The position of the business cycle committee of the President's Unemployment Conference is guardedly stated as follows:

Additions to credits which cannot be economically validated by a commensurate effect in actual production are speculative, and as such should be subjected to control so that business and industry can be maintained in a healthy state. Such control is primarily the responsibility of the banker, secondarily of our agencies of banking supervision.¹

The attitude of the committee is that credit restriction should begin with the voluntary action of individual commercial bankers. It is not suggested that they exercise autocratic control over their clients, but that through the requirement of higher ratios of current assets to current liabilities at peak times and through the closer scanning of the projects for which money is borrowed they should exercise a steadying influence over the kind of trading done. It

¹ *Business Cycles and Unemployment, op. cit.*, p. xxv.

is also proposed, hesitatingly by the committee, but more strongly by others, that national action in credit restriction be taken by the Federal Reserve system, through the device of raising discount rates to member banks when the situation seems to warrant it. This by itself has a limited power in curbing speculation. But the action will have a wholesome psychological effect in sobering up business all along the line, giving warning to banker, private investor, and entrepreneur, and initiating a train of forces that is likely to keep inflation in check.

There are difficulties in certain phases of the administration of discount rate policy and many practical objections to be expected.¹ Checking trade when everyone sees opportunities for large profits may prove an unpopular task. There is also the feeling of suspicion between agricultural and industrial groups and their common suspicion that the financial powers have interests that are not always the same as theirs. The advocates of restriction of credit by the Federal Reserve system are conscious of these problems, but they believe that, taken as a whole, the measure is feasible. It is supported by eminent authorities.² The Federal Reserve Board in its latest pronouncements seems frankly to have accepted the responsibility. Its attitude on this point is:

It seems clear that if business is undergoing a rapid expansion and is in danger of developing an unhealthy or speculative boom, it should not be assisted by too easy credit conditions. In such circumstances the creation of additional credit by rediscounting at Federal Reserve banks should be discouraged by increasing the cost of that credit—that is, by raising the discount rate.³

¹ In its conclusions the English study, *Is Unemployment Inevitable*, *op. cit.*, recognizes the importance of "more conscious use of the rate of discount by the Bank of England" for the purpose of checking the swings of the cycle (p. 83). The practical aspects are discussed in more detail in a paper prepared by A. C. Pigou, pp. 91-131.

² Cf. Wesley C. Mitchell, "The Problem of Controlling Business Cycles," in *The Stabilization of Business*, edited by Lionel C. Edie (New York, 1923), chap. i.

³ Federal Reserve Board, *Tenth Annual Report* (Washington, 1924), p. 10. This report contains a valuable discussion of the discount-rate problem.

III GOVERNMENT LEADERSHIP IN RESEARCH

1 *The Collection of Statistical Data*

The need for a reliable gauge as to when the reserve of public works and purchases should be released, the danger of an untimely decision to raise discount rates, and most measures for mitigating the effects of the business cycle depend for their success on the development of reliable indexes of business activity. To develop such an index, barometer or forecaster, whatever it be called, which will be most sensitive to the movements of the business cycle and most regularly suggest or predict future changes, is a challenging statistical problem even if all the data necessary to base it upon were assumed to be available. The difficulties are increased manifold when the required statistical information is lacking.

It is true that, as the English report puts it, "we are a long way yet from the point at which credit control would be an exact science, and not, as it is under present circumstances, an art."¹ But we are likely to come much nearer to an exact science or at least greatly to improve the art if certain statistical data are regularly collected. And it would help in many other ways in combating unemployment. One who reads the literature of unemployment and of business fluctuations is struck by the frequency with which economists, social service workers, and reformers complain of the lack of essential data. The recommendation so frequently made, that the statistical and research service of governmental bodies and trade associations should be adequate, is, therefore, an indispensable one in a comprehensive program.

The detailed statistical data called for would make a formidable list. The English report mentions need for information on the course of prices, the volume of production of important commodities, and the stocks on hand; the quantity as well as the value of foreign trade; the consumption of material and of finished goods (including the turnover of retail trade); railway traffic; unemployment statistics; wage movements; the quantity of legal-tender money in

¹ *Is Unemployment Inevitable?* *op. cit.*, p. 45.

circulation; the quantity and rapidity of circulation of bank money; and shipping statistics.¹ The committee of the President's Unemployment Conference, after mentioning needs for certain specific types of information, emphasizes the importance of the time element. It urges that many of the statistics should be collected for current use through a telegraphic service and promptly given to the press, after which they should be published in a form that allows more exact and ample data, for use in reference and research.²

We may accept without criticism that the statistics desired by the authorities are valuable, and that the required statistical research should be carried on. But emphasis on statistics and research should not be used as a substitute for action. Tolerable progress can be made with the data already in hand. We must tie many of our programs for gathering statistics and maintaining research to actual programs.

2 *Promotion of Research in Regularization Technique*

Another helpful activity of the government is to keep the subject of regularization before the public. The inertia which keeps industrial firms and labor leaders thinking along the old grooves must be undermined by studies which bring forcefully to public attention the possibilities of regularization. In some industries striking examples of progress in regularization through the action of individual firms can already be found. These should be studied and their methods broadcast. By securing reports as to the technique available to promote steadiness of operation in those trades, the more alert and progressive firms will be stimulated to use better methods.

More than research is required. The procedure for the government in educating industry has already been developed by the successful experience of the Department of Commerce, under Secretary Hoover, in promoting the simplification and standardization movement, explained in Chapter VII, and in the study made of the means of eliminating seasonal opera-

¹ *Is Unemployment Inevitable?* *op. cit.*, p. 49.

² *Business Cycles and Unemployment*, *op. cit.*, p. xxii.

tion in the building industry, explained in Chapter XIII. The principal element of this procedure is the fact that the leadership of the government is used to initiate action by industrial groups and to give their decisions authority and prestige, but that the actual responsibility for progress is put on the industries themselves.

IV VOCATIONAL GUIDANCE AND TRAINING

From the three measures designed to modify the course of business fluctuations we now turn to one that aims to improve the abilities and powers of adaptation of the workers themselves. A decade ago and before, the need for vocational guidance and training was given a most conspicuous place in unemployment studies, particularly in programs of unemployment relief.¹ The majority and the minority reports of the British Royal Commission on the Poor Laws, 1909, agree in pronouncing the recruitment of boy labor into "blind-alley" occupations, from which they graduate as a matter of course into unemployment or the ranks of the unemployables, as the most serious phenomenon encountered in the study of unemployment.² Evidence is plentiful that the greatest evil of such occupations is their demoralizing character, resulting in the destruction of the habit of industry, steady application, and other qualities necessary in industrial life. Rowntree and Lasker emphasize that adult unemployment can never be solved if juvenile employment is neglected and that our present neglect is manufacturing incompetent and casual workers in appalling numbers between the years of twelve and twenty.³ The explanation of the greater prominence of the subject formerly in American studies, and particularly in English studies, is the fact that the members of commissions and their investigators were drawn chiefly from those who had served on distress committees, where they could not have failed to be impressed by the large number

¹ Frederick A. Mills, *Contemporary Theories of Unemployment and of Unemployment Relief* (Columbia University Study, New York, 1917), pp. 46-52.

² Royal Commission, *op. cit.*, vol. xxxvii, pp. 326, 348, and 1167.

³ Rowntree and Lasker, *op. cit.*, pp. 16 and 27.

of workers coming before them who were incompetents. Now the subject is given a less conspicuous place in unemployment programs, although recognized as important on many other grounds. Vocational guidance and training has been included in the recommendations of such American reports as "Standard Recommendations for the Relief and Prevention of Unemployment," issued periodically by the American Association for Labor Legislation, but the remedy is not presented in a way which would detract from the importance of measures that modify the fluctuations of industry.

There is no doubt that lack of training has a direct relation to unemployment. It has often been found that even in times of depression there are vacancies for skilled workers, and none available to fill them. This is likely to increase the irregularity of industrial operation, for the lack of skilled men may make it impossible to provide work for the unskilled. The situation may be illustrated by conditions in the bituminous coal fields, where even the conjuncture of a serious depression and the large surplus of labor did not prevent interruptions in operations due to lack of skilled men. An investigator who made a study of the conditions reports that lost production due to "labor shortage" was frequently reported by individual mines and districts, because the absence of experienced miners made it impossible to maintain the proper ratio between day men who do the common or unskilled labor around a mine and the skilled miners whose output keeps them busy.¹

Aside from the effect on industry as a whole, there are the personal consequences to the individual worker. Misdirection into "blind-alley" employments that offer no promotion when the worker becomes of age, leaving him untrained and ill equipped for adult industrial occupations, may condemn him to insecurity, disappointment, and the ultimate demoralization of a frustrated life. The extent to which this occurs has been shown by various investigations to be larger than we commonly suppose. Unemployment studies have established the fact that far too large a proportion of

¹ George J. Anderson, "Labor Policy in the Bituminous Industry" (New York, 1922), p. 26.

the unemployed and the unemployable are young. One of the most recent studies of this kind is a detailed analysis in Great Britain, in the early part of 1923, of over 370,000 claims for unemployment benefit current at the time at the employment exchanges. This brought out strikingly the high proportion of young claimants, for taking males and females together, the greatest concentration of claimants was in the age group 18-19, and of males separately in the group 20-24.¹

The attack on such a problem requires a tremendous extension of industrial training and of vocational guidance to young people. The methods of training also need to be improved. It is generally agreed that the old forms of apprenticeship now have a limited application. What is required is a broader training to all who enter industry, so that they may be equipped in the fundamentals which make them adaptable to any occupation. It has been termed "an education of hand, eye, and brain." In specialized occupations there is required training for versatility, and if an operation is marked by seasonal fluctuations, skill in at least one other complementary craft or trade, so that the worker may be able to take full advantage of opportunities to steady his earnings.²

Vocational guidance, in turn, should precede the time the boy enters industry. When he is ready for work, the school authorities and the juvenile placement agencies of the employment exchanges, on the one side, and the personnel departments of firms, on the other, should be prepared with a placement technique which enables them to place him in accordance with his ability, and where the opportunities for advancement and probability of security are at least fair. This by itself is a program of no mean proportions. It is, however, one in which all elements in the community have an opportunity to cooperate, for it requires the support of

¹ *British Labour Gazette*, November, 1923, p. 395.

² This is practiced in some of the occupations taught by the Manhattan Trade School for Girls, in New York. Hand sewers of millinery are taught to trim lamp shades, and every girl who takes up straw-hat machine operating must take several units of garment-machine operating and is advised to take embroidery-machine operating.

school authorities and social agencies, and interest in the newer developments in personnel management.

In addition to training extended as preparation for entrance into industry, there remains much to be done with the problem of training and readjusting those who have already been misdirected, and find themselves unable to acquire a degree of stability in the industrial system. Unemployment insurance gives means of enforcing training on those who would not make efforts to improve themselves. Under the British insurance scheme, one of the statutory requirements for receipt of unemployment benefit is the willingness to take a course of instruction designated by the insurance authorities. For instance, a wire-stretcher, seventeen years of age, who had refused to attend a course of instruction required by the local insurance officer, had her claim for benefits disallowed.¹ In many cases such training may not achieve the result of fully readapting the worker to industry, but if adequately developed it would prove of great benefit.

It may be urged that many adult workers who are chronically unemployed are unimprovable and that, therefore, training will do them little good. That may be true. But these workers are the principal recipients of charity, and it is largely for them that relief work is provided. Such work as breaking stone, sawing wood, or picking oakum is designed chiefly as a test of the applicant's willingness to work, and is thinly disguised charity. Often it is a question whether it is less degrading than would be the giving of the wages outright as relief. Would not the requirement that for such assistance by the state the applicant must apply himself to a required course of training offer more hope of improving the worker than the relief measures with which we have had such unsatisfactory experience in the past? In America such training was tried during the worst periods of the depressions of 1914-15 and 1920-21. In Europe there has been somewhat more continuous experience.² To be effective it must be a permanent feature of industrial readjustment,

¹ *British Labour Gazette*, July, 1923, p. 269.

² Cf. "Training the Unemployed," in *The Survey*, January 7, 1922, pp. 556-557.

and part of a comprehensive system for training and retraining the workers who have not become adapted to industry.

V PROGRAMS OF INTERNATIONAL ASSOCIATIONS

The methods of regularizing employment and of alleviating unemployment considered in this study include the chief recommendations advanced in any quarter in the past few decades, except the problems of relief. A comparison with our broadest programs will indicate what is missing.

The conclusions of the international bodies give consideration to some special problems which do not loom as large in America as they do in Europe. A study published by the International Labour Office of the League of Nations,¹ deals largely with unemployment insurance, employment exchanges, relief work, reservation of public works for periods of depression, vocational training and guidance, and several special topics, such as the legal regulation of engagement and dismissal existing in some countries. Considerable attention is given to the measures adopted on the continent to encourage emigration and to regulate immigration, and to international conventions on these subjects. Under the heading "Measures for Maintaining Industrial Activity" such economic devices are considered as protective tariffs, encouragement of export trade, credits, or grants to undertakings and credits for agriculture. Some of these measures are obviously designed to meet the special problems of various countries.

The recommendations of the International Association on Unemployment likewise take into account the special conditions on the Continent. At the meeting of this group, in September, 1923, at Luxemburg, on report of a special committee headed by John B. Andrews, of this country, the association invited its national sections "to examine the following suggestions." The program is quoted practically entire:

1. To substitute as soon as possible for the policy of exaggerated protection, which is a relic of war economy incompatible

¹ International Labour Office. *Remedies for Unemployment* (Geneva, 1922), 141 pp.

with a state of peace, a policy of greater freedom for the circulation of goods, effected where possible by customs unions between countries.

2. To improve the financial situation and above all to prevent further monetary catastrophes, with the assistance of the principal countries concerned in the reestablishment of normal international financial relations.

3. To establish in each country, and as far as possible according to a uniform system, complete statistics of production and of economic resources and needs, so as to encourage the cooperation of the managers of industry in providing a good distribution of work and of the factors of production throughout the world.

4. To facilitate a desirable distribution of population.

5. To develop an adequate and permanent system of public employment exchanges, with cooperation between the systems of different countries.

6. To make unemployment insurance general and to consider the suggestions of experts and the result of practical experience with a view to bringing about greater regularity of employment.

7. To promote long-range planning of public works so as to increase their execution during periods of industrial depression.

8. To increase educational facilities and to develop machinery for vocational guidance with a view to directing labor into the most desirable and efficient channels.

It is increasingly apparent that only through a policy of international solidarity can the material and moral patrimony of each nation be conserved.

One could cite a great many other programs of a derivative nature by various commissions, conferences, associations, social agencies, and religious bodies, but this would involve much repetition. The main outlines of a comprehensive program are clear. The need of the present is not the development of new or different plans for combating unemployment, but to put into practice the ideas already accepted.

VI A PLACE FOR ALL GROUPS IN THE PROGRAM

If there is anything that stands out in a review of various measures for reducing the insecurity of employment, it is the synthetic nature of the remedy. Some elements will count more in the final result than others, but, never-

theless, the program is one of overcoming stubborn details. What gives these separate parts the breath of life is a common purpose. In this the responsibility falls upon everyone. Perhaps on the employer first, because of his triple obligation to his profession, to his employees, and to the public. Certainly on the consumer, because it is in response to his fickle taste and changing habits that modern industry is continually changing its speed and its direction, and to his inertia that progress is so slow. And undeniably on governmental bodies because, collectively, they are our largest consumers and our greatest employers. Since it is as the organized expression of social interests that governments perform these functions, they owe the obligation to set an example upon which the administration of more private interests should be patterned.

American business has made significant progress in the understanding of this problem. Broadly speaking, society's attempts to grapple with it have passed through three stages. In the first, it was conceived as one of dealing with the unemployed. For centuries lack of a job was regarded as due to personal fault. In America, as late as the nineties, the literature of unemployment was concerned chiefly with descriptions of migratory workers and tramps as a class, and legislation until recently was limited to provisions for dealing with them. The second stage—a matter of the past two decades—constituted a great advance. Interest became focussed on the phenomenon of unemployment itself. But the assumption that its occurrence was inevitable restricted the remedial program to such measures as public works, public employment exchanges and unemployment insurance.

Public enlightenment is now entering the third and most important stage. The problem is seen not, strictly speaking, as of the unemployed or of unemployment, but of employment. The conditions under which men are hired and maintained at work will determine the extent of which they are laid off and fired. The boom year or the peak-load period at the height of the season are as crucially important as the year of depression or the period of slack. The purposes and methods of management in the one will determine the seriousness of the evil in the other. Only to the degree that

security of employment is realized to be a major factor in the economical and efficient conduct of industry guiding operations from day to day, will the recurrence of unemployment be substantially lessened. This lessening will then come about in the only way it is now seen to be possible on any large scale—as a consequence of operating plants and industries under intelligent managerial policies.

Fortunately for America, what separates the industrial patient here from a healthy security of employment is not, as in some European and Eastern countries, a serious systemic weakness. Our resources and our youth have given us little reason to worry about over-population, the backwardness of industry, the dependence upon foreign countries, and similar ailments of other nations. The physician's remedy here is mainly psychic and local. Psychic treatment, so ably begun in some of the reports which have been cited, is gradually disabusing industry of the thought that insecurity of employment is incurable. What is now needed is persistence in the local treatments which apply in detail the individual, industrial, and social technique required to regularize employment. No one expects a complete solution. What is hoped for is that enough progress will be made in time to leave a residue that would concentrate the problem on the genuinely required reserve of unemployed and the genuinely unemployable.

The fortunate aspect of this treatment, unlike medical treatment, is that industrial good health is contagious. So great is the interdependence of business enterprises that every little improvement in regularity of operation made in one concern or locality sends out ripples that help to steady the rest of industry. When enough effort has been exerted in every quarter, the cumulative effect will be substantial, and security of employment will become a more normal characteristic of industrial life. In the meanwhile, every attempt at regularization supplies evidence and practice toward a progressively more stable industrial life. Every success achieved or improvement made gains momentum for the creative point of view upon which a solution of the problem depends.

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